STN Columbus

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 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  DEC 18   CA/CAplus pre-1967 chemical substance index entries enhanced
                   with preparation role
 NEWS  4  DEC 18   CA/CAplus patent kind codes updated
 NEWS  5  DEC 18   MARPAT to CA/CAplus accession number crossover limit increased
                   to 50,000
 NEWS  6  DEC 18   MEDLINE updated in preparation for 2007 reload
 NEWS  7  DEC 27   CA/CAplus enhanced with more pre-1907 records
 NEWS  8  JAN 08   CHEMLIST enhanced with New Zealand Inventory of Chemicals
 NEWS  9  JAN 16   CA/CAplus Company Name Thesaurus enhanced and reloaded
 NEWS 10  JAN 16   IPC version 2007.01 thesaurus available on STN
 NEWS 11  JAN 16   WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
 NEWS 12  JAN 22   CA/CAplus updated with revised CAS roles
 NEWS 13  JAN 22   CA/CAplus enhanced with patent applications from India
 NEWS 14  JAN 29   PHAR reloaded with new search and display fields
 NEWS 15  JAN 29   CAS Registry Number crossover limit increased to 300,000 in
                   multiple databases
 NEWS 16  FEB 15   PATDPASPC enhanced with Drug Approval numbers
 NEWS 17  FEB 15   RUSSIAPAT enhanced with pre-1994 records
 NEWS 18  FEB 23   KOREAPAT enhanced with IPC 8 features and functionality
 NEWS 19  FEB 26   MEDLINE reloaded with enhancements
 NEWS 20  FEB 26   EMBASE enhanced with Clinical Trial Number field
 NEWS 21  FEB 26   TOXCENTER enhanced with reloaded MEDLINE
 NEWS 22  FEB 26   IFICDB/IFIPAT/IFIUDB reloaded with enhancements
 NEWS 23  FEB 26   CAS Registry Number crossover limit increased from 10,000
                   to 300,000 in multiple databases
 NEWS 24  MAR 15   WPIDS/WPIX enhanced with new FRAGHITSTR display format
 NEWS 25  MAR 16   CASREACT coverage extended
 NEWS 26  MAR 20   MARPAT now updated daily
 NEWS 27  MAR 22   LWPI reloaded
 NEWS 28  MAR 30   RDISCLOSURE reloaded with enhancements
 NEWS 29  MAR 30   INPADOCDB will replace INPADOC on STN
 NEWS 30  APR 02   JICST-EPLUS removed from database clusters and STN

 NEWS EXPRESS  NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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 NEWS LOGIN    Welcome Banner and News Items
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FILE 'HOME' ENTERED AT 20:25:55 ON 12 APR 2007

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FILE 'SCISEARCH' ENTERED AT 20:26:13 ON 12 APR 2007
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=> s stahlman m?/au
L1          198 STAHLMAN M?/AU

=> s gray m?/au
L2         1797 GRAY M?/AU

=> s l1 and l2
L3           49 L1 AND L2

=> s johnson m?/au
L4        11201 JOHNSON M?/AU

=> s l4 and l3
L5            5 L4 AND L3

=> d l5 1-5 ibib abs

L5   ANSWER 1 OF 5  SCISEARCH  COPYRIGHT (c) 2007 The Thomson
Full Text
     Corporation  on STN
ACCESSION NUMBER:    1990:643270  SCISEARCH
THE GENUINE ARTICLE: EJ531
TITLE:               LIPOCORTIN-1 IMMUNOREACTIVITY IN THE HUMAN PITUITARY-GLAND
AUTHOR:              JOHNSON M D (Reprint); GRAY M E; PEPINSKY R B;
                     STAHLMAN M T
CORPORATE SOURCE:    VANDERBILT UNIV, MED CTR, SCH MED, DEPT PATHOL, C-3321
                     MCN, NASHVILLE, TN 37232 (Reprint); VANDERBILT UNIV, MED
                     CTR, SCH MED, DEPT PEDIAT, NASHVILLE, TN 37232; BIOGEN RES
                     CORP, CAMBRIDGE, MA
COUNTRY OF AUTHOR:   USA
SOURCE:              JOURNAL OF HISTOCHEMISTRY & CYTOCHEMISTRY, (DEC 1990) Vol.
                     38, No. 12, pp. 1841-1845.
                     ISSN: 0022-1554.
PUBLISHER:           HISTOCHEMICAL SOC INC, MT SINAI MEDICAL CENTER 19 EAST
                     98TH ST SUTIE 9G, NEW YORK, NY 10029.
DOCUMENT TYPE:       Article; Journal
FILE SEGMENT:        LIFE
LANGUAGE:            English
REFERENCE COUNT:     27
ENTRY DATE:          Entered STN: 1994
                     Last Updated on STN: 1994

L5   ANSWER 2 OF 5  SCISEARCH  COPYRIGHT (c) 2007 The Thomson
Full Text
     Corporation  on STN
ACCESSION NUMBER:    1990:155846  SCISEARCH
THE GENUINE ARTICLE: CU073
TITLE:               ONTOGENY OF EPIDERMAL GROWTH-FACTOR RECEPTOR AND
                     LIPOCORTIN-1 IN FETAL AND NEONATAL HUMAN LUNGS
AUTHOR:              JOHNSON M D (Reprint); GRAY M E; CARPENTER G; PEPINSKY
                     R B; STAHLMAN M T
CORPORATE SOURCE:    VANDERBILT UNIV, MED CTR, SCH MED, DEPT PATHOL, NASHVILLE,
                     TN 37232; VANDERBILT UNIV, MED CTR, SCH MED, DEPT BIOCHEM,
                     NASHVILLE, TN 37232; VANDERBILT UNIV, MED CTR, SCH MED,
                     DEPT PEDIAT, NASHVILLE, TN 37232; BIOGEN RES CORP,
                     CAMBRIDGE, MA
COUNTRY OF AUTHOR:   USA
SOURCE:              HUMAN PATHOLOGY, (FEB 1990) Vol. 21, No. 2, pp. 182-191.
                     ISSN: 0046-8177.
PUBLISHER:           W B SAUNDERS CO, INDEPENDENCE SQUARE WEST CURTIS CENTER,
                     STE 300, PHILADELPHIA, PA 19106-3399.
DOCUMENT TYPE:       Article; Journal
FILE SEGMENT:        LIFE; CLIN
LANGUAGE:            English
REFERENCE COUNT:     38
ENTRY DATE:          Entered STN: 1994
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Last Updated on STN: 1994

L5 ANSWER 3 OF 5 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1989:243156 SCISEARCH
THE GENUINE ARTICLE: U3412
TITLE: ONTOGENY OF EPIDERMAL GROWTH-FACTOR RECEPTOR KINASE AND OF LIPOCORTIN-1 IN THE OVINE LUNG
AUTHOR: **JOHNSON M D (Reprint)**; **GRAY M E**; CARPENTER G; PEPINSKY R B; SUNDELL H; **STAHLMAN M T**
CORPORATE SOURCE: VANDERBILT UNIV, MED CTR, SCH MED, DEPT PEDIAT, NASHVILLE, TN 37232; VANDERBILT UNIV, MED CTR, SCH MED, DEPT BIOCHEM, NASHVILLE, TN 37232; VANDERBILT UNIV, MED CTR, SCH MED, DEPT PATHOL, NASHVILLE, TN 37232; BIOGEN RES CORP, CAMBRIDGE, MA 02142
COUNTRY OF AUTHOR: USA
SOURCE: PEDIATRIC RESEARCH, (MAY 1989) Vol. 25, No. 5, pp. 535-541
ISSN: 0031-3998.
PUBLISHER: WILLIAMS & WILKINS, 351 WEST CAMDEN ST, BALTIMORE, MD 21201-2436.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 46
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

L5 ANSWER 4 OF 5 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1988:48264 SCISEARCH
THE GENUINE ARTICLE: L7193
TITLE: CALCITONIN GENE-RELATED PEPTIDE IN HUMAN-FETAL LUNG AND IN NEONATAL LUNG-DISEASE
AUTHOR: **JOHNSON M D (Reprint)**; **GRAY M E**; **STAHLMAN M T**
CORPORATE SOURCE: VANDERBILT UNIV, MED CTR, SCH MED, DEPT PATHOL, NASHVILLE, TN 37232; VANDERBILT UNIV, MED CTR, SCH MED, DEPT PEDIAT, NASHVILLE, TN 37232
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF HISTOCHEMISTRY & CYTOCHEMISTRY, (FEB 1988) Vol. 36, No. 2, pp. 199-204.
ISSN: 0022-1554.
PUBLISHER: HISTOCHEMICAL SOC INC, MT SINAI MEDICAL CENTER 19 EAST 98TH ST SUTIE 9G, NEW YORK, NY 10029.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 22
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

L5 ANSWER 5 OF 5 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1987:208054 SCISEARCH
THE GENUINE ARTICLE: G7005
TITLE: ONTOGENY OF CALCITONIN-GENE-RELATED PEPTIDE (CGRP) IN HUMAN-FETAL LUNG
AUTHOR: **JOHNSON M D (Reprint)**; **GRAY M E**; **STAHLMAN M T**
CORPORATE SOURCE: VANDERBILT UNIV, MED CTR, SCH MED, DEPT PEDIAT, NASHVILLE, TN 37232; VANDERBILT UNIV, MED CTR, SCH MED, DEPT PATHOL, NASHVILLE, TN 37232
COUNTRY OF AUTHOR: USA
SOURCE: PEDIATRIC RESEARCH, (APR 1987) Vol. 21, No. 4, Part 2, pp. A456-A456.
ISSN: 0031-3998.
PUBLISHER: WILLIAMS & WILKINS, 351 WEST CAMDEN ST, BALTIMORE, MD 21201-2436.
DOCUMENT TYPE: Conference; Journal
FILE SEGMENT: LIFE

LANGUAGE: English
REFERENCE COUNT: 0
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

=> sel L5 4 CIT
E1 THROUGH E1 ASSIGNED

=> s E1; file CAPLUS; s E1
L6 21 "JOHNSON M D, 1988, V36, P199,?"/RE
("JOHNSON M D, 1988, V36, P199,"?/RE)

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L7 11 "JOHNSON M D, 1988, V36, P199,?"/RE
("JOHNSON M, 1988, V36, P199"?/RE)

=> s l6 or l7
11 "JOHNSON M D, 1988, V36, P199,?"/RE
("JOHNSON M, 1988, V36, P199"?/RE)
L8 11 L6 OR L7

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L6 ANSWER 1 OF 21 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 2006:803192 SCISEARCH
THE GENUINE ARTICLE: 073AA
TITLE: Serotonin, CGRP, calcitonin, CCK, somatostatin and VIP in the endocrine cells of developing rat lung
AUTHOR: Bayrakdar A (Reprint); Tarakci B G
CORPORATE SOURCE: Firat Univ, Fac Vet Med, Dept Histol & Embriol, TR-23119

Elazig, Turkey (Reprint)
alibayrakdar@firat.edu.tr; btarakci@firat.edu.tr
COUNTRY OF AUTHOR: Turkey
SOURCE: REVUE DE MEDECINE VETERINAIRE, (JUN 2006) Vol. 157, No. 6, pp. 313-318.
ISSN: 0035-1555.
PUBLISHER: ECOLE NATIONALE VETERINAIRE TOULOUSE, 23 CHEMIN DES CAPELLES, 31076 TOULOUSE CEDEX 3, FRANCE.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 42
ENTRY DATE: Entered STN: 31 Aug 2006
Last Updated on STN: 31 Aug 2006
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Immunoreactivity of serotonin and some regulatory peptides (calcitonin gene related peptide (CGRP), calcitonin, cholecystokinine (CCK), somatostatin) has been demonstrated in the endocrine cells of developing lung by the peroxidase anti-peroxidase method in rat. Immunocytochemistry revealed higher density of pulmonary endocrine cells containing serotonin and CGRP in foetal and early neonatal periods than in the lungs of older rats. Serotonin positive cells were mainly located within the bronchial epithelium and in alveolar sacs, whereas the localization of CGRP positive cells was essentially restricted to alveolar sacs. The calcitonin and somatostatin-containing cells were scarcely observed whatever the developmental stages examined in bronchi, bronchioles and in alveolar sacs. The CCK expression was weak and exclusively found in alveolar sacs, and remained constant from foetus to adult stages. VIP immmunoreactivity was never detected during lung development in rat. These results suggest that serotonin and CGRP would be potent mediators involved in the lung ontogeny and in neonatal adaptation to air breathing.

L6 ANSWER 2 OF 21 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 2004:496303 SCISEARCH
THE GENUINE ARTICLE: 823VS
TITLE: Forkhead box A2 transcription factor is expressed in all types of neuroendocrine lung tumors
AUTHOR: Khoor A (Reprint); Stahlman M T; Johnson J M; Olson S J; Whitsett J A
CORPORATE SOURCE: Mayo Clin, Dept Lab Med & Pathol, 4500 San Pablo Rd, Jacksonville, FL 32224 USA (Reprint); Mayo Clin, Dept Lab Med & Pathol, Jacksonville, FL 32224 USA; Vanderbilt Univ, Sch Med, Dept Pathol, Nashville, TN USA; Vanderbilt Univ, Sch Med, Dept Pediat, Nashville, TN USA; Univ S Florida, Dept Pathol, Coll Med, Tampa, FL USA; James A Haley VA Hosp, Tampa, FL USA; Cincinnati Childrens Hosp, Med Ctr, Div Neonatol, Cincinnati, OH USA; Cincinnati Childrens Hosp, Med Ctr, Div Pulm Biol, Cincinnati, OH USA
COUNTRY OF AUTHOR: USA
SOURCE: HUMAN PATHOLOGY, (MAY 2004) Vol. 35, No. 5, pp. 560-564.
ISSN: 0046-8177.
PUBLISHER: W B SAUNDERS CO, INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 19
ENTRY DATE: Entered STN: 18 Jun 2004
Last Updated on STN: 18 Jun 2004
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Forkhead box A2 (Foxa2) is a winged helix nuclear transcription protein that regulates the expression of genes that are critical to lung morphogenesis, differentiation, and function, including thyroid transcription factor-1, surfactant proteins, and Clara cell secretory protein. We examined the immunoreactivity of Foxa2 in paraffin sections of 75 lung tumors: 17 typical carcinoids, 2 atypical carcinoids, 4 large cell neuroendocrine (NE) carcinomas, 23 small cell carcinomas, 19 adenocarcinomas, 7 squamous cell carcinomas, and 3 (non-NE) large cell carcinomas, using a polyclonal rabbit Foxa2 antibody and a biotin-streptavidin detection system. In the adjacent lung, Foxa2 was detected in normal and hyperplastic type II cells. Foxa2 immunoreactivity

was detected in 13 typical carcinoids (76%), 2 atypical carcinoids (100%), 2 large cell NE carcinomas (50%), 11 small cell carcinomas (48%), and 1 adenocarcinoma (5%). Squamous cell carcinomas and (non-NE) large cell carcinomas uniformly lacked Foxa2 staining. Expression of Foxa2 in the entire spectrum of NE lung tumors is another indication of differentiation shared by typical carcinoid, atypical carcinoid, large cell NE carcinoma, and small cell carcinoma. Hum PATHOL 35:560-564. (C) 2004 Elsevier Inc. All rights reserved.

L6 ANSWER 3 OF 21 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 2002:24655 SCISEARCH
THE GENUINE ARTICLE: 505JP
TITLE: Hyperplasia of alveolar neuroendocrine cells in rat lung carcinogenesis by silica with selective expression of proadrenomedullin-derived peptides and amidating enzymes
AUTHOR: Elizegi E; Pino I; Vicent S; Blanco D; Saffiotti U; Montuenga L M (Reprint)
CORPORATE SOURCE: Univ Navarra, Dept Histol & Pathol, Edif Invest, C Irunlarrea 1, Navarra 31008, Spain (Reprint); Univ Navarra, Dept Histol & Pathol, Navarra 31008, Spain; NCI, Bethesda, MD 20892 USA
COUNTRY OF AUTHOR: Spain; USA
SOURCE: LABORATORY INVESTIGATION, (DEC 2001) Vol. 81, No. 12, pp. 1627-1638.
ISSN: 0023-6837.
PUBLISHER: LIPPINCOTT WILLIAMS & WILKINS, 530 WALNUT ST, PHILADELPHIA, PA 19106-3621 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 55
ENTRY DATE: Entered STN: 11 Jan 2002
Last Updated on STN: 11 Jan 2002
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Pulmonary neuroendocrine (NE) cells are found as clusters called neuroepithelial bodies (NEBs) or as single cells scattered in the respiratory epithelium. They express a variety of bioactive peptides, and they are thought to be the origin of NE lung tumors. Proadrenomedullin N-terminal 20 peptide (PAMP) is a peptide derived from the same precursor as adrenomedullin (AM). AM and PAMP are C-terminally amidated during their processing by a well-characterized amidating enzyme, peptidylglycine alpha-amidating monooxygenase (PAM). We explored AM, PAMP, and PAM expression as markers for NE hyperplasia in three rodent species (Fischer 344 rats, Syrian golden hamsters, and A/J mice) after a single intratracheal instillation of crystalline silica (quartz), which was previously found to induce different reactions in the three species. Rats developed a marked silicosis, with alveolar and bronchiolar hyperplasia and formation of peripheral lung epithelial tumors. Mice developed a moderate degree of silicosis, but not epithelial hyperplasia or tumors. Hamsters showed dust-storage lesions, but not silicosis or tumors. NE cells were immunolabeled for calcitonin gene-related peptide (CGRP), AM, PAMP, and PAM in serial sections of each lung. The numbers of positive NEBs per lung area and positive cells per NEB were quantified. A marked hyperplastic reaction in the NEBs of silica treated rats occurred only in alveolar NEBs, but not in bronchiolar NEBs. From Month 11 onwards, there were marked differences in the number of alveolar NEBs per section and in the number of cells per alveolar NEB immunoreactive for CGRP. No hyperplastic NE cell reaction was observed in silica-treated mice and hamsters. Significant PAMP and PAM expression was seen only in rat hyperplastic alveolar and in bronchiolar NEBs from Month 11 onwards. In E18, rat fetal lung NEBs were found to be strongly positive for PAMP and PAM.

L6 ANSWER 4 OF 21 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 2000:823726 SCISEARCH
THE GENUINE ARTICLE: 367TV
TITLE: Differentiation and proliferation of pulmonary neuroendocrine cells
AUTHOR: Ito T (Reprint)

CORPORATE SOURCE: Yokohama City Univ, Sch Med, Dept Pathol, Kanazawa Ku, 3-9 Fuku Ura, Yokohama, Kanagawa 2360004, Japan (Reprint); Yokohama City Univ, Sch Med, Dept Pathol, Kanazawa Ku, Yokohama, Kanagawa 2360004, Japan
COUNTRY OF AUTHOR: Japan
SOURCE: PROGRESS IN HISTOCHEMISTRY AND CYTOCHEMISTRY, (1999) Vol. 34, No. 4, pp. 253-+. ISSN: 0079-6336.
PUBLISHER: URBAN & FISCHER VERLAG, BRANCH OFFICE JENA, P O BOX 100537, D-07705 JENA, GERMANY.
DOCUMENT TYPE: General Review; Journal
LANGUAGE: English
REFERENCE COUNT: 356
ENTRY DATE: Entered STN: 2000
Last Updated on STN: 2000

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB In this review article the morphological profiles of pulmonary neuroendocrine cells (PNEC) in experimental animals and humans are described. Although the mechanisms of differentiation and proliferation of neuroendocrine cells in the airway epithelium remain to be solved, several experimental studies using explant culture and cell culture systems of fetal animal lungs have been performed to clarify fundamental phenomena associated with neuroendocrine differentiation and proliferation. Experimental animal studies using chronic hypoxia, toxic substances and carcinogens have succeeded in inducing alterations in PNEC systems, and these studies have elucidated the reactions of PNEC in cell. injury and inflammation, and functional aspects of PNEC in disease conditions. Human pulmonary neuroendocrine tumors include various histological subtypes, and show divergent morphological and biological varieties. Molecular abnormalities of small cell carcinoma, the most aggressive subtype of pulmonary neuroendocrine tumors, have been extensively studied, but the mechanism of neuroendocrine differentiation of this tumor is still largely unknown.

PNEC share common phenotypes with neuronal cells, and developmental studies have begun contributed evidence that similar transcriptional networks, including active and repressive basic helix-loop-helix (bHLH) factors, function in the differentiation of both PNEC and neuronal cells. Such a bHLH network may also play a central role in determining cell differentiation in lung carcinomas. Further studies of the neuronal bHLH network, its regulatory system and related signal transduction pathways, will be required for understanding the mechanisms of neuroendocrine differentiation and proliferation in normal and pathological lung conditions.

L6 ANSWER 5 OF 21 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 1998:602523 SCISEARCH
THE GENUINE ARTICLE: 108MT
TITLE: Tumor necrosis factor induces neuroendocrine differentiation in small cell lung cancer cell lines
AUTHOR: Haley K J; Patidar K; Zhang F; Emanuel R L; Sunday M E (Reprint)
CORPORATE SOURCE: Brigham & Womens Hosp, Dept Pathol, 75 Francis St, Boston, MA 02115 USA (Reprint); Brigham & Womens Hosp, Dept Pathol, Boston, MA 02115 USA; Brigham & Womens Hosp, Dept Med, Div Pulm & Crit Care, Boston, MA 02115 USA; Harvard Univ, Sch Med, Boston, MA USA; Childrens Hosp, Dept Pathol, Boston, MA 02115 USA
COUNTRY OF AUTHOR: USA
SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY-LUNG CELLULAR AND MOLECULAR PHYSIOLOGY, (AUG 1998) Vol. 275, No. 2, pp. L311-L321. ISSN: 1040-0605.
PUBLISHER: AMER PHYSIOLOGICAL SOC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 77
ENTRY DATE: Entered STN: 1998
Last Updated on STN: 1998

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB We studied tumor necrosis factor (TNF)-alpha as a candidate cytokine to promote neuroendocrine cell differentiation in a nitrosamine-hyperoxia hamster lung injury model. Differential screening identified expression of the genes modulated by TNF-alpha preceding neuroendocrine cell differentiation. Undifferentiated small cell lung carcinoma (SCLC) cell lines NCI-H82 and NCI-H526 were treated with TNF-alpha for up to 2 wk. Both cell lines demonstrated rapid induction of gastrin-releasing peptide (GRP) mRNA; H82 cells also expressed aromatic-L-amino acid decarboxylase mRNA within 5 min after TNF-alpha was added. Nuclear translocation of nuclear factor-kappa B immunostaining occurred with TNF-alpha treatment, suggesting nuclear factor-kappa B involvement in the induction of GRP and/or aromatic-L-amino acid decarboxylase gene expression. We also demonstrated dense core neurosecretory granules and immunostaining for proGRP and neural cell adhesion molecule in H82 cells after 7-14 days of TNF-alpha treatment. We conclude that TNF-alpha can induce phenotypic features of neuroendocrine cell differentiation in SCLC cell lines. Similar effects of TNF-alpha in vivo may contribute to the neuroendocrine cell differentiation/hyperplasia associated with many chronic inflammatory pulmonary diseases.

L6 ANSWER 6 OF 21 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 1997:550319 SCISEARCH
THE GENUINE ARTICLE: XL670
TITLE: Immunoreactivity for the alpha-subunit of the pituitary glycoprotein hormones in pulmonary neuroendocrine cells of developing human lung and various perinatal diseases
AUTHOR: VandenSteen P (Reprint); Verbeken E K; VanLommel A; Lauweryns J M
CORPORATE SOURCE: KATHOLIEKE UNIV LEUVEN, SCH MED, LAB HISTOPATHOL, B-3001 LOUVAIN, BELGIUM
COUNTRY OF AUTHOR: BELGIUM
SOURCE: REGULATORY PEPTIDES, (14 MAY 1997) Vol. 70, No. 1, pp. 37-48. ISSN: 0167-0115.
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 56
ENTRY DATE: Entered STN: 1997
Last Updated on STN: 1997

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Infant lung tissue, obtained at autopsy, was studied by immunohistochemistry for the presence of pituitary glycoprotein hormones (PGHs) in the lung. The infants, born at term or preterm, died of various causes. The results provide the first immunological evidence of the presence of the common a-subunit of the pituitary glycoprotein hormones (alpha PGH) in the lung. The immunoreactivity is located in the pulmonary neuroendocrine cells and neuroepithelial bodies. In addition, the cells labelled by alpha PGH antisera (alpha PGH cells) form a subpopulation of the neuroendocrine cells detected by anti-calcitonin immunohistochemistry (CT cells). Moreover, the number of alpha PGH cells appears to increase after neonatal pneumonia or when the number of CT cells is elevated following the development of disease. Also, the weak staining of one of the monoclonal antibodies against the specific b-subunit of thyrotropin (TSH) might, in combination with the increased detectability of a-subunits, indicate that TSH can be endogenously produced in the lung. (C) 1997 Elsevier Science B.V.

L6 ANSWER 7 OF 21 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 1997:478492 SCISEARCH
THE GENUINE ARTICLE: XF608
TITLE: Calcitonin gene-related peptide immunoreactivity in adult mouse lung
AUTHOR: Verastegui C (Reprint); Oliveira A P; FernandezVivero J; Romero A; deCastro J M
CORPORATE SOURCE: UNIV CADIZ, FAC MED, DEPT MORPHOL SCI, CADIZ, SPAIN (Reprint)

COUNTRY OF AUTHOR: SPAIN
SOURCE: EUROPEAN JOURNAL OF HISTOCHEMISTRY, (1997) Vol. 41, No. 2, pp. 119-126.
ISSN: 1121-760X.
PUBLISHER: LUIGI PONZIO E FIGLIO, VIA D DA CATALOGNA 1/3, 27100 PAVIA, ITALY.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 41
ENTRY DATE: Entered STN: 1997
Last Updated on STN: 1997
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Calcitonin gene-related peptide (CGRP) is a 37 aminoacid peptide coded by the calcitonin gene that is produced by thyroid C cells and medullary carcinoma. It is also widely distributed in neurons and endocrine cells throughout the body. The presence of CGRP in the lungs suggests that this peptide exerts important regulatory actions at this level, and it can act like a neuroregulator released both from nerve terminals and neuroendocrine (NE) cells. To understand the role of CGRP in the lung, it is important to explore its localization in different species. In this paper, we analyse the presence and localization of CGRP in the adult mouse lung using an immunocytochemical staining method. Our results show a widespread distribution of this peptide in isolated neuroendocrine cells and neuroepithelial bodies (NEBs), as well as in nerve fibres distributed in many areas of the lung, including bronchi and bronchioli. These fibres are in close contact with epithelium, neuroendocrine cells and smooth muscle. In addition, some immunostained nerve cell bodies and immunoreactive intrinsic ganglion cells can be shown. CORP has been previously demonstrated in the mammalian lung using immunocytochemistry. To the best of our knowledge, this is the first time that CORP has been immunocytochemically demonstrated in the mouse lung both in NE cells, NEBS, ganglion cells and in nerve fibres which an related to neuroendocrine cells.

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ACCESSION NUMBER: 1997:355866 SCISEARCH
THE GENUINE ARTICLE: WX198
TITLE: Quantitative microscopical methods for the identification and localisation of nerves and neuroendocrine cell markers in mammalian lung
AUTHOR: Springall D R (Reprint); Polak J M
CORPORATE SOURCE: ROYAL POSTGRAD MED SCH, DEPT HISTOCHEM, LONDON W12 0NN, ENGLAND
COUNTRY OF AUTHOR: ENGLAND
SOURCE: MICROSCOPY RESEARCH AND TECHNIQUE, (1 APR 1997) Vol. 37, No. 1, pp. 92-100.
ISSN: 1059-910X.
PUBLISHER: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; ENGI
LANGUAGE: English
REFERENCE COUNT: 40
ENTRY DATE: Entered STN: 1997
Last Updated on STN: 1997
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The lung contains a dense innervation and a population of endocrinelike cells both of which are believed to have a role in pulmonary function and to be involved in disease processes. They contain a number of regulatory peptides that affect vascular and bronchial tone, growth and repair. They can be detected and localised by immunocytochemistry, thereby allowing investigation of the normal distribution and changes in disease processes. The application of image analysis has added greatly to the amount of information that can be obtained from such morphological studies. Data can be obtained on either the overall distribution and amount of the antigen in a tissue, thereby allowing comparisons between normal and disease states, or following experimental manipulation. Furthermore, the actual intracellular level can be assessed, which adds the previously unattained dimension of comparisons between cells. Thus the density of innervation in the specific regions of the lung tissue, either total nerves or specific peptide-containing cells, may be estimated and used to show release of a peptide or to determine changes in the nerve density in disease. Image processing and image analysis have reduced the labour-intensive manual input required to perform such studies. The continuing development of digital image processing and computer technology will increase the application of these methods in lung research of normal and pathological material. (C) 1997 Wiley-Liss, Inc.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1997:355862 SCISEARCH
THE GENUINE ARTICLE: WX198
TITLE: Ontogeny of neuroepithelial bodies: Correlations with mitogenesis and innervation
AUTHOR: Sorokin S P (Reprint); Hoyt R F; Shaffer M J
CORPORATE SOURCE: BOSTON UNIV, SCH MED, DEPT ANAT & NEUROBIOL, 80 E CONCORD ST, BOSTON, MA 02118 (Reprint)
COUNTRY OF AUTHOR: USA
SOURCE: MICROSCOPY RESEARCH AND TECHNIQUE, (1 APR 1997) Vol. 37, No. 1, pp. 43-61.
ISSN: 1059-910X.
PUBLISHER: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012.
DOCUMENT TYPE: General Review; Journal
FILE SEGMENT: LIFE; ENGI
LANGUAGE: English
REFERENCE COUNT: 114
ENTRY DATE: Entered STN: 1997
Last Updated on STN: 1997
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB This paper summarizes current knowledge and advances speculation about the formation of the neuroendocrine system of mammalian lungs (comprising uninnervated solitary and clustered small-granule cells and innervated neuroepithelial bodies). It relates the initial appearance of neuroendocrine cells to regulation of mitotic activity in the epithelium during the development of the lung and pays special attention to the later ingrowth of nerves that converts some of them into neuroepithelial bodies, structures considered ideally adapted to function as chemoreceptors. A few original observations from ongoing immunohistochemical, electron microscopic, and analytical studies have been included here and there to point the discussion. The neuroendocrine cells are derived from undifferentiated precursors present in the endodermal pulmonary epithelium. At an early pseudoglandular stage of lung development these precursors begin to differentiate into neuroendocrine small-granule cells, commencing in the larynx and upper trachea, and expanding centrifugally into pulmonary airways almost as rapidly as these are laid down. Subsequently many of the intrapulmonary small-granule cell clusters become innervated. This event, the delayed appearance of small-granule cells synthesizing other than the dominant peptides and amines (calcitonin gene-related peptide and serotonin in rodents, gastrin-releasing peptide and serotonin in human beings), and other regional adjustments yield the population distribution present in the lungs of adults. Neuroendocrine cell precursors normally differentiate into typical serotonin- or peptide-synthesizing small-granule cells without requiring direct contact by nerves, and dissociated cells from a previously innervated population continue to exhibit physiological characteristics of oxygen sensors despite the loss of contact with nerves. Development of the innervation occurs in stages. Small-granule cell clusters are reached first by ganglion cells derived from pulmonary neuroblasts and later on by processes of extrinsic sensory nerves. The latter not only convey information to the central nervous system but also serve in a variety of ways to extend the neuroepithelial bodies' sphere of influence within the lung itself. (C) 1997 Wiley-Liss, Inc.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1997:19565 SCISEARCH
THE GENUINE ARTICLE: VZ426
TITLE: Ontogeny of Clara cell-specific protein and its mRNA:

Their association with neuroepithelial bodies in human fetal lung and in bronchopulmonary dysplasia
AUTHOR: Khoor A (Reprint); Gray M E; Singh G; Stahlman M T
CORPORATE SOURCE: VANDERBILT UNIV, MED CTR, DEPT PEDIAT, NASHVILLE, TN 37232; VANDERBILT UNIV, MED CTR, DEPT PATHOL, NASHVILLE, TN 37232; VET AFFAIRS MED CTR, DEPT PATHOL, PITTSBURGH, PA
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF HISTOCHEMISTRY & CYTOCHEMISTRY, (DEC 1996) Vol. 44, No. 12, pp. 1429-1438.
ISSN: 0022-1554.
PUBLISHER: HISTOCHEMICAL SOC INC, UNIV WASHINGTON, DEPT BIOSTRUCTURE, BOX 357420, SEATTLE, WA 98195.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 48
ENTRY DATE: Entered STN: 1997
Last Updated on STN: 1997
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Clara cell-specific 10-KD protein (CCSP) is an abundant product of nonciliated bronchiolar epithelial (Clara) ails in the lung, We have determined the temporal-spatial distribution of CCSP and its mRNA in developing human lung and in neonatal lung disease, using immunohistochemistry and in situ hybridization. CCSP immunoreactivity was found in nonciliated bronchiolar epithelial ails from 12 weeks of gestation onward. Tracheal and bronchial epithelia showed positive immunoreactivity at each gestational week after 15 weeks and 14 creeks, respectively. CCSP mRNA was seen in the bronchial and bronchiolar epithelia from 16 weeks on; ward and was detected in the trachea from 19 through 23 weeks of gestation. CCSP immunoreactivity and mRNA were present in nonciliated single cells of bronchial and bronchiolar epithelia in fetuses and in infants with and without lung disease. CCSP and CCSP mRNA-containing epithelial cells also formed clusters around neuroepithelial bodies (NEBs), especially at airway branch points, suggesting that NEBs and Clara cells might interact during development and during pulmonary regeneration. Femme of evidence of overlapping of some but not all cells expressing CCSP, SF-A, and pro-SP-B during lung development, a common cell lineage is proposed, with subsequent divergence of phenotypes.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1996:706564 SCISEARCH
THE GENUINE ARTICLE: VJ937
TITLE: Pulmonary neuroendocrine cells and lung development
AUTHOR: Sunday M E (Reprint)
CORPORATE SOURCE: BRIGHAM & WOMENS HOSP, DEPT PATHOL, 75 FRANCIS ST, BOSTON, MA 02115 (Reprint); HARVARD UNIV, SCH MED, BOSTON, MA 02115
COUNTRY OF AUTHOR: USA
SOURCE: ENDOCRINE PATHOLOGY, (AUG 1996) Vol. 7, No. 3, pp. 173-201
ISSN: 1046-3976.
PUBLISHER: HUMANA PRESS INC, 999 RIVERVIEW DRIVE SUITE 208, TOTOWA, NJ 07512.
DOCUMENT TYPE: General Review; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 231
ENTRY DATE: Entered STN: 1996
Last Updated on STN: 1996
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Pulmonary neuroendocrine cells produce bioactive peptides such as gastrin-releasing peptide (GRP) at high levels in developing fetal lung. The role of GRP and other peptides in promoting branching morphogenesis, cell proliferation, and cell differentiation during lung organogenesis is reviewed. Possible roles for bioactive peptides derived from these cells in the pathophysiology of perinatal lung disorders are discussed.

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Corporation on STN
ACCESSION NUMBER: 1995:759332 SCISEARCH
THE GENUINE ARTICLE: TC621
TITLE: HAMSTER PULMONARY ENDOCRINE-CELLS WITH NEURAL CELL-ADHESION MOLECULE (NCAM) IMMUNOSTAINING
AUTHOR: ITO T (Reprint); NOZAWA A; USUDA Y; KITAMURA H; KANISAWA M
CORPORATE SOURCE: YOKOHAMA CITY UNIV, SCH MED, DEPT PATHOL, KANAZAWA KU, 3-9 FUKU URA, YOKOHAMA, KANAGAWA 236, JAPAN (Reprint)
COUNTRY OF AUTHOR: JAPAN
SOURCE: HISTOCHEMISTRY AND CELL BIOLOGY, (NOV 1995) Vol. 104, No. 5, pp. 357-362.
ISSN: 0301-5564.
PUBLISHER: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 35
ENTRY DATE: Entered STN: 1995
Last Updated on STN: 1995
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Pulmonary endocrine cells of Syrian golden hamster were stained for neural cell adhesion molecule (NCAM) with indirect fluorescent immunostaining and observed with a confocal laser scanning microscope equipped with an argon laser. Sections 100 mu m thick of hamster lung fixed with phosphate-buffered 4% paraformaldehyde were prepared. The sections were incubated with rat monoclonal antibody against NCAM, followed by fluorescence-labeled antibody against rat immunoglobulin. Some were doubly immunostained for NCAM and one of the following endocrine markers: neuron-specific enolase, calcitonin gene-related peptide and serotonin. Expression of NCAM in the hamster airway epithelium was seen in cell nests resembling neuroepithelial bodies (NEBs). NCAM. immunostaining was positive at the lateral cell borders between the cells composing the nest, but negative at the border with the adjacent, presumably non-endocrine cells. Double immunostaining confirmed that the grouped cells with NCAM immunoreactivity were of an endocrine nature, but that single endocrine cells did not show NCAM immunoreactivity. An electron microscopic study with NCAM immunostaining confirmed the light microscopic study. These suggest that NCAM expression could be important for the morphogenesis of NEBs. A confocal laser microscope was used to make three-dimensional images of NEBs after NCAM immunostaining and the spatial interaction between NEBs and the surrounding microenvironment was studied.

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Corporation on STN
ACCESSION NUMBER: 1994:2383 SCISEARCH
THE GENUINE ARTICLE: MM222
TITLE: ONTOGENY OF ENDOCRINE-CELLS IN THE RESPIRATORY SYSTEM OF SYRIAN GOLDEN-HAMSTERS .2. INTRAPULMONARY AIRWAYS AND ALVEOLI
AUTHOR: MCDOWELL E M (Reprint); HOYT R F; SOROKIN S P
CORPORATE SOURCE: BOSTON UNIV, SCH MED, DEPT ANAT & NEUROBIOL, PULM CELL BIOL LAB, BOSTON, MA 02118; UNIV MARYLAND, SCH MED, DEPT PATHOL, BALTIMORE, MD 21201
COUNTRY OF AUTHOR: USA
SOURCE: CELL AND TISSUE RESEARCH, (JAN 1994) Vol. 275, No. 1, pp. 157-167.
ISSN: 0302-766X.
PUBLISHER: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 46
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Results of this and the preceding study reveal 3 patterns of endocrine cell development in hamster airway. The first, a prenatal wave, begins in the larynx and sweeps down the extra- and intrapulmonary conducting airway to the bronchioloalveolar portals. Cells differentiate singly and in groups (presumptive neuroepithelial bodies, pNEBs),

colocalize immunoreactivity for seretonin (5-HT) and calcitonin gene-related peptide (CGRP), and persist throughout adulthood. Postnatally a few cells also express calcitonin (CT). Appearance of 5-HT and CGRP staining correlates with the onset of local, NEB-associated mitogenesis in fetal hamster airway epithelium. The second pattern begins after birth and is unique to the larynx and cartilaginous trachea. It involves differentiation of single cells which stain for CGRP but not 5-HT. Later, a proportion also stain for CT. This pattern seemingly accounts for the predominance of single cells in laryngotracheal epithelium of adult animals. In the third pattern, cells immunoreactive for peptide YY (PYY) differentiate, singly at first and later among cells of tiny pNEBs. This begins postnatally in alveoli, spreading centripetally with retrograde differentiation of alveolar epithelium back into the bronchiolar terminations. Restricted distribution and lack of immunoreactivity for 5-HT, CGRP, or CT suggest that the PYY-positive endocrine cells form a regional subset performing special roles in pulmonary homeostasis.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1994:2382 SCISEARCH
THE GENUINE ARTICLE: MM222
TITLE: ONTOGENY OF ENDOCRINE-CELLS IN THE RESPIRATORY SYSTEM OF SYRIAN GOLDEN-HAMSTERS .1. LARYNX AND TRACHEA
AUTHOR: MCDOWELL E M (Reprint); SOROKIN S P; HOYT R F
CORPORATE SOURCE: BOSTON UNIV, SCH MED, DEPT ANAT & NEUROBIOL, PULM CELL BIOL LAB, BOSTON, MA 02118; UNIV MARYLAND, SCH MED, DEPT PATHOL, BALTIMORE, MD 21201
COUNTRY OF AUTHOR: USA
SOURCE: CELL AND TISSUE RESEARCH, (JAN 1994) Vol. 275, No. 1, pp. 143-156.
ISSN: 0302-766X.
PUBLISHER: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 47
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The ontogeny of protein gene product 9.5 (PGP 9.5), serotonin (5-HT), calcitonin gene-related peptide (CGRP), and calcitonin (CT) immunoreactivity was evaluated in small-granule endocrine cells of hamster laryngotracheal epithelium from fetal day 11 to adulthood. Two centrifugal (proximal-to-distal) patterns of differentiation occur. The first pattern begins during fetal life. Endocrine cells, single and clustered in groups (presumptive- or protoneuroepithelial bodies, pNEBs), initially colocalize immunostaining for PGP 9.5, 5-HT, and CGRP in the larynx and proximal 2/3 of the trachea on day 12 and spread to the caudal trachea on day 13.5-HT disappears fleetingly during the 24 h preceding birth; otherwise immunoreactivity for all three substances persists into adulthood. The clusters of endocrine cells survive beyond birth but are so diluted by expansion of the nonendocrine epithelium as to become inconspicuous. Since innervation was not actually observed, these clusters may persist as pNEBs, without developing connections to afferent or efferent nerve fibers. The second pattern concerns single small-granule cells stainable for CGRP but not for 5-HT. These cells first appear in the larynx and cartilaginous part of the cranial trachea on postnatal day 3, and in the middle and caudal trachea, on day 5. The cells increase in number on day 7. In adults, they predominate among endocrine cells of the cartilaginous region. A subset of these cells begins to co-express CT proximally on postnatal day 10, reaching the caudal end of the trachea by 3 weeks. A few elements of the older 5-HT-positive population may also become immunoreactive for CT in juvenile hamsters.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1993:420272 SCISEARCH
THE GENUINE ARTICLE: LK421

TITLE: IMMUNOCYTOCHEMICAL STUDY OF THE LUNG OF DOMESTIC-FOWL AND PIGEON - ENDOCRINE-CELLS AND NERVES
AUTHOR: LOPEZ J (Reprint); BARRENECHEA M A; BURRELL M A; SESMA P
CORPORATE SOURCE: UNIV NAVARRA, FAC SCI, DEPT HISTOL & PATHOL, APDO 273, E-31080 PAMPLONA, SPAIN (Reprint); UNIV NAVARRA, FAC MED, DEPT HISTOL & PATHOL, E-31080 PAMPLONA, SPAIN
COUNTRY OF AUTHOR: SPAIN
SOURCE: CELL AND TISSUE RESEARCH, (JUL 1993) Vol. 273, No. 1, pp. 89-95.
ISSN: 0302-766X.
PUBLISHER: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 58
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The presence of endocrine cells and nerves in the lung of 2 avian species (Gallus gallus and Columba livia domestica) has been studied by peroxidase-antiperoxidase (PAP) and avidin-biotin complex (ABC) immunocytochemical methods at the light-microscopic level. Two immunoreactive cell-types have been identified in the epithelium of the primary and secondary bronchi of chick lung: serotonin- and bombesin-immunoreactive cells; and 3 cell-types, namely, serotonin-, bombesin- and CGRP- (calcitonin gene related peptide) immunoreactive cells, have been located in the bronchial epithelium of pigeon lung. Co-localization of 2 different immunoreactivities within the same cell has not been detected. VIP-immunoreactive nerves have been observed in different locations in chick lung.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1993:290825 SCISEARCH
THE GENUINE ARTICLE: KZ646
TITLE: COLOCALIZATION OF PEPTIDE-HORMONES IN NEUROENDOCRINE CELLS OF HUMAN FETAL AND NEWBORN LUNGS - AN ELECTRON-MICROSCOPIC STUDY
AUTHOR: STAHLMAN M T (Reprint); GRAY M E
CORPORATE SOURCE: VANDERBILT UNIV, MED CTR, SCH MED, DEPT PEDIAT, A-0126 MED CTR N, NASHVILLE, TN 37232 (Reprint)
COUNTRY OF AUTHOR: USA
SOURCE: ANATOMICAL RECORD, (MAY 1993) Vol. 236, No. 1, pp. 206-212
ISSN: 0003-276X.
PUBLISHER: WILEY-LISS, DIV JOHN WILEY & SONS INC 605 THIRD AVE, NEW YORK, NY 10158-0012.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 26
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB This study investigated the colocalization of the peptide hormones bombesin or calcitonin with calcitonin gene related peptide (CGRP) in neuroendocrine cells (NE) in the lungs of human fetuses of varying gestational ages and in the lungs of newborn infants who died with acute or chronic lung disease in the first weeks or months after birth. Double immunolabeling of dense core granules for these peptides was also studied in this same patient population. On-grid double gold immunolabeling was carried out on 29 subjects using anti-bombesin and anti-CGRP and on 22 subjects using anti-calcitonin and anti-CGRP as primary antibodies, the secondary antibodies being labeled with different-size gold spheres. Colocalization of both bombesin and calcitonin with CGRP was demonstrated, not only in the same NE cell, but also on the same dense core granule. Colocalization was rarely found in normal fetuses, and most frequently found in newborn infants with acute lung disease, usually hyaline membrane disease (HMD), or with the development of chronic lung disease in the first weeks or months after birth. Double labeling of the same dense core granules might imply action of peptides in concert, or perhaps one peptide

acting in a paracrine role (e.g., on bronchial or bronchiolar smooth muscle) and the second peptide acting in an autocrine fashion on the parent cell (e.g., in the regulation of granule production or release).

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Full Text
Corporation on STN
ACCESSION NUMBER: 1993:290808 SCISEARCH
THE GENUINE ARTICLE: KZ646
TITLE: NEUROENDOCRINE CELLS AND NERVES OF THE LUNG
AUTHOR: ADRIAENSEN D (Reprint); SCHEUERMANN D W
CORPORATE SOURCE: UNIV ANTWERP, CELL BIOL & HISTOL, GROENENBORGERLAAN 171, B-2020 ANTWERP, BELGIUM
COUNTRY OF AUTHOR: BELGIUM
SOURCE: ANATOMICAL RECORD, (MAY 1993) Vol. 236, No. 1, pp. 70-86. ISSN: 0003-276X.
PUBLISHER: WILEY-LISS, DIV JOHN WILEY & SONS INC 605 THIRD AVE, NEW YORK, NY 10158-0012.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 168
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

L6 ANSWER 18 OF 21 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1993:92183 SCISEARCH
THE GENUINE ARTICLE: KK751
TITLE: PULMONARY BLASTOMA - COMPARISON BETWEEN ITS EPITHELIAL COMPONENTS AND FETAL BRONCHIAL EPITHELIUM
AUTHOR: INOUE H (Reprint); KASAI K; SHINADA J; YOSHIMURA H; KAMEYA T
CORPORATE SOURCE: KITASATO UNIV, SCH MED, DEPT PATHOL, KITASATO 1-15-1, SAGAMIHARA, KANAGAWA 228, JAPAN (Reprint); KITASATO UNIV, SCH MED, DEPT THORAC SURG, SAGAMIHARA, KANAGAWA 228, JAPAN
COUNTRY OF AUTHOR: JAPAN
SOURCE: ACTA PATHOLOGICA JAPONICA, (DEC 1992) Vol. 42, No. 12, pp. 884-892. ISSN: 0001-6632.
PUBLISHER: BLACKWELL PUBLISHING ASIA, 54 UNIVERSITY ST, P O BOX 378, CARLTON, VICTORIA 3053, AUSTRALIA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 27
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Three cases of pulmonary blastoma exhibiting biphasic epithelial and stromal patterns, and a case of fetal lung-type adenocarcinoma, were examined by immunohistochemistry and electron microscopy (EM) and compared with fetal bronchial epithelium in order to explore the multidirectional differentiation of their epithelial components. The glandular cells of all four tumors resembled fetal bronchial epithelial cells in the pseudoglandular stage. Neuroendocrine (NE) cells were also present; they were argyrophilic and expressed pan-NE markers, neurosecretory granules and peptide hormones. The neural cell adhesion molecule (NCAM) was strongly expressed on the cell membranes of glandular cells, as in the case of proximal bronchial epithelial cells at the pseudoglandular stage in fetal lung. Sialosylated Lewis(x) was also expressed, indicating that the epithelial cells were possibly of endodermal origin. Two of the four cases showed considerable immunoreactivity for alpha-fetoprotein (AFP). The epithelial cells of pulmonary blastomas may occasionally dedifferentiate into cells functionally resembling fetal hepatic, foregut and yolk sac cells expressing AFP. Tumor examination by immunohistochemistry and EM suggested that the glandular cells of the tumors may differentiate to some extent like those of fetal large bronchi at the pseudoglandular stage, but there was concordance and discordance in the expression of neuroendocrine and oncofetal markers between blastomatous tumors and fetal bronchial epithelium.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1992:662720 SCISEARCH
THE GENUINE ARTICLE: JX081
TITLE: COMPARATIVE HISTOLOGICAL OVERVIEW OF THE CHEMICAL CODING OF THE PULMONARY NEUROEPITHELIAL ENDOCRINE SYSTEM IN HEALTH AND DISEASE
AUTHOR: SCHEUERMANN D W (Reprint); ADRIAENSEN D; TIMMERMANS J P; DEGROODTLASSEEL M H A
CORPORATE SOURCE: UNIV ANTWERP, INST HISTOL & MICROSCOP ANAT, GROENENBORGERLAAN 171, B-2020 ANTWERP, BELGIUM (Reprint)
COUNTRY OF AUTHOR: BELGIUM
SOURCE: EUROPEAN JOURNAL OF MORPHOLOGY, (1992) Vol. 30, No. 2, pp. 101-112. ISSN: 0924-3860.
PUBLISHER: SWETS ZEITLINGER PUBLISHERS, P O BOX 825, 2160 SZ LISSE, NETHERLANDS.
DOCUMENT TYPE: General Review; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 80
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Pulmonary neuroepithelial endocrine cells have been shown to contain serotonin-immunoreactivity in almost every species studied. Regulatory peptides, of which at least ten have been reported so far, were mostly only demonstrated in a number of the investigated species or in a subpopulation of neuroepithelial endocrine cells. Calcitonin gene-related peptide, calcitonin, bombesin/gastrin-releasing peptide, enkephalin, somatostatin, substance P, cholecystokinin and polypeptide YY were found in normal lung tissues, whereas ACTH and several other bioactive substances should be regarded as ectopic. The human pulmonary neuroepithelial endocrine system seems to harbour the largest spectrum of bioactive mediators.

The distribution patterns of bioactive substances in various subpopulations of solitary neuroepithelial endocrine cells or neuroepithelial bodies and in different cells of a single neuroepithelial body reveal a great complexity. Therefore, further research is needed to elucidate the chemical coding of this system.

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Corporation on STN
ACCESSION NUMBER: 1992:46773 SCISEARCH
THE GENUINE ARTICLE: GY785
TITLE: ISOLATION AND CULTURE OF NEUROENDOCRINE CELLS FROM FETAL RABBIT LUNG USING IMMUNOMAGNETIC TECHNIQUES
AUTHOR: SPEIRS V (Reprint); WANG Y Y; YEGER H; CUTZ E
CORPORATE SOURCE: HOSP SICK CHILDREN, DEPT PATHOL, 555 UNIV AVE, TORONTO M5G 1X8, ONTARIO, CANADA (Reprint); HOSP SICK CHILDREN, RES INST, TORONTO M5G 1X8, ONTARIO, CANADA; UNIV TORONTO, TORONTO M5S 1A1, ONTARIO, CANADA
COUNTRY OF AUTHOR: CANADA
SOURCE: AMERICAN JOURNAL OF RESPIRATORY CELL AND MOLECULAR BIOLOGY (JAN 1992) Vol. 6, No. 1, pp. 63-67. ISSN: 1044-1549.
PUBLISHER: AMER LUNG ASSOC, 1740 BROADWAY, NEW YORK, NY 10019.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 32
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB We describe a novel method for the isolation and subsequent culture of pulmonary neuroendocrine cells (PNEC) from normal fetal rabbit lung using immunomagnetic techniques with a monoclonal antibody, MOC-1. This surface antigen has originally been identified on small cell carcinoma of the lung. Our immunohistochemical studies have shown that MOC-1 cross-reacts with PNEC of human and rabbit fetal lungs on frozen sections,

and in fixed cultures of rabbit fetal lung. Using a combination of mechanical and enzymatic disaggregation, a single-cell suspension of fetal rabbit lung was obtained. These cells were incubated with MOC-1 conjugated to magnetic beads. PNEC were selectively removed from the heterogeneous mixture using a magnet, giving up to 2-fold enrichment compared with our previously reported method. These cells were maintained in culture in a functional state for up to 7 days. The ability to prepare PNEC from rabbit fetal lung offers an opportunity to develop in vitro models to investigate the physiologic and biochemical properties of these cells, and ultimately it may lead to a better understanding of their function in health and disease.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1991:65302 SCISEARCH
THE GENUINE ARTICLE: EU449
TITLE: GASTRIN-RELEASING PEPTIDE GENE-PRODUCTS IN MIDTRIMESTER HUMAN FETAL LUNG WITH AND WITHOUT MATERNAL SMOKING HISTORY DURING PREGNANCY
AUTHOR: CHEN M F (Reprint); LEWIS S J; JAGOE R; ALEXANDER N; VANNOORDEN S; SPRINGALL D R; POLAK J M
CORPORATE SOURCE: MCGILL UNIV, DEPT PATHOL, MONTREAL H3A 2B4, QUEBEC, CANADA; HAMMERSMITH HOSP, ROYAL POSTGRAD MED SCH, DEPT HISTOCHEM, LONDON W12 0HS, ENGLAND; HAMMERSMITH HOSP, ROYAL POSTGRAD MED SCH, DEPT MED PHYS, LONDON W12 0HS, ENGLAND
COUNTRY OF AUTHOR: CANADA; ENGLAND
SOURCE: PEDIATRIC PULMONOLOGY, (1991) Vol. 10, No. 1, pp. 30-35. ISSN: 8755-6863.
PUBLISHER: WILEY-LISS, DIV JOHN WILEY & SONS INC 605 THIRD AVE, NEW YORK, NY 10158-0012.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: CLIN
LANGUAGE: English
REFERENCE COUNT: 18
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A preliminary morphological study on human fetal lungs with positive maternal smoking history demonstrated alterations of the neuroepithelial bodies (NEBs). We studied human fetal lung tissue between the gestational ages of 12 weeks and 19 weeks, comprising 12 cases with a smoking history during pregnancy (Group 1) and eight cases without a smoking history during pregnancy (Group 2). We demonstrated, by immunocytochemistry, the presence of gastrin-releasing peptide (GRP) gene products: GRP 14-27 in all 20 cases, and C terminal peptide of pro-GRP (C-flanking peptide) in 17 cases. Quantification of the neuroepithelial cells (NECs) was made by computer-enhanced image analysis using the Context Vision system, expressing 1) the total stained areas of the NECs per unit area of section and 2) the total staining areas of the NECs per unit area of airway epithelium, measured as the area of cytokeratin immunoreactivity in an adjacent section. The results show no statistically significant difference between groups 1 and 2 for either GRP 14-27 or C-flanking peptides. The apparent lack of influence of maternal smoking during pregnancy on the expression of GRP gene products in the NECs could be a reflection of inherently reduced reactivity of the cells during the gestation period studied. However, a larger series is needed before any conclusions can be made. Alternatively, the adverse effects of smoking might be reflected during the canalicular phase of lung development; an increased immunoreactivity appears to be present during that period. The expression of pro-GRP gene products in the pulmonary NECs of older fetuses and neonates with maternal smoking history during pregnancy requires further study.

=> d his

(FILE 'HOME' ENTERED AT 20:25:55 ON 12 APR 2007)

FILE 'SCISEARCH' ENTERED AT 20:26:13 ON 12 APR 2007
L1 198 S STAHLMAN M?/AU

L2 1797 S GRAY M?/AU
L3 49 S L1 AND L2
L4 11201 S JOHNSON M?/AU
L5 5 S L4 AND L3
SEL L5 4 CIT
L6 21 S E1

FILE 'CAPLUS' ENTERED AT 20:29:54 ON 12 APR 2007
L7 11 S E1
L8 11 S L6 OR L7

FILE 'CAPLUS' ENTERED AT 20:32:20 ON 12 APR 2007

FILE 'SCISEARCH' ENTERED AT 20:32:42 ON 12 APR 2007

FILE 'CAPLUS' ENTERED AT 20:32:43 ON 12 APR 2007

=> l7 not l6
L7 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l7 not l6
11 "JOHNSON M D, 1988, V36, P199,?"/RE
("JOHNSON M, 1988, V36, P199"?/RE)
L9 0 L7 NOT L6

=> file SCISEARCH; sel L6 11 CIT

FILE 'SCISEARCH' ENTERED AT 20:50:35 ON 12 APR 2007

E2 THROUGH E2 ASSIGNED

=> s E2
L10 7 "SUNDAY M E, 1996, V7, P173,?"/RE
("SUNDAY M E, 1996, V7, P173,"?/RE)

=> d l10 1-7 ibib abs

L10 ANSWER 1 OF 7 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 2005:872454 SCISEARCH
THE GENUINE ARTICLE: 957EY
TITLE: Fetal oxygen tension promotes Tenascin-C-dependent lung branching morphogenesis
AUTHOR: Gebb S A (Reprint); Fox K; Vaughn J; McKean D; Jones P L
CORPORATE SOURCE: Univ Colorado, Hlth Sci Ctr, Dept Med, Cardiovasc Pulm Res Lab, Box B133, 4200 E 9th Ave, Denver, CO 80262 USA (Reprint); Univ Colorado, Hlth Sci Ctr, Dept Med, Cardiovasc Pulm Res Lab, Denver, CO 80262 USA; Univ Colorado, Hlth Sci Ctr, Dept Pediat, Denver, CO 80202 USA
sarah.gebb@uchsc.edu
COUNTRY OF AUTHOR: USA
SOURCE: DEVELOPMENTAL DYNAMICS, (SEP 2005) Vol. 234, No. 1, pp. 1-10.
ISSN: 1058-8388.
PUBLISHER: WILEY-LISS, DIV JOHN WILEY & SONS INC, 111 RIVER ST, HOBOKEN, NJ 07030 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 51
ENTRY DATE: Entered STN: 8 Sep 2005
Last Updated on STN: 8 Sep 2005
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Tenascin-C (TN-C) is a mesenchyme-derived extracellular matrix (ECM) glycoprotein required for fetal lung branching morphogenesis. Given that the low oxygen (O-2) environment of the fetus is also essential for normal lung branching morphogenesis, we determined whether fetal O-2 tension supports this process by promoting TN-C expression. Initial studies showed that 15-day fetal rat lung explants cultured for 2 days at 3 % O-2

not only branched well, but they also expressed higher levels of TN-C when compared to lungs maintained at 21 % O-2 , which branched poorly. Antisense oligonucleotide studies demonstrated that TN-C produced in response to 3% O-2 was essential for lung branching morphogenesis. As well, exogenous TN-C protein was shown to promote branching of lung epithelial rudiments cultured at 21 % O-2. Because ECM-degrading proteinases are capable of catabolizing TN-C protein, we reasoned that 3% O-2 might promote TN-C deposition by limiting the activity of these enzymes within the fetal lung. Consistent with this idea, gelatin zymography showed that the activity of a 72-kDa gelatinase, identified as matrix metalloproteinase-2 (MMP-2), was lower at 3 % O-2 vs. 21 % O-2. Furthermore, pharmacologic inhibition of MMP-2 activity in fetal lung explants cultured at 21 % O-2 resulted in increased TN-C deposition within the mesenchyme, as well as enhanced branching morphogenesis. Collectively, these studies indicate that fetal O-2 tension promotes TN-C-dependent lung epithelial branching morphogenesis by limiting the proteolytic turnover of this ECM component within the adjacent mesenchyme. (c) 2005 Wiley-Liss, Inc.

L10 ANSWER 2 OF 7 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 2005:478941 SCISEARCH
THE GENUINE ARTICLE: 922DK
TITLE: Vitamin c prevents the effects of prenatal nicotine on pulmonary function in newborn monkeys
AUTHOR: Proskocil B J; Sekhon H S; Clark J A; Lupo S L; Jia Y B; Hull W M; Whitsett J A; Starcher B C; Spindel E R (Reprint)
CORPORATE SOURCE: Oregon Hlth Sci Univ, Oregon Natl Primate Res Ctr, Div Neurosci, 505 NW 185th Ave, Beaverton, OR 97006 USA (Reprint); Oregon Hlth Sci Univ, Oregon Natl Primate Res Ctr, Div Neurosci, Beaverton, OR 97006 USA; Oregon Hlth Sci Univ, Dept Physiol & Pharmacol, Portland, OR 97201 USA; Harborview Med Ctr, Dept Pathol, Seattle, WA USA; Childrens Hosp, Div Neonatol, Cincinnati, OH 45229 USA; Childrens Hosp, Div Pulm Biol, Cincinnati, OH 45229 USA; Univ Texas, Ctr Hlth, Dept Biochem, Tyler, TX USA
spindele@ohsu.edu
COUNTRY OF AUTHOR: USA
SOURCE: AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE (1 MAY 2005) Vol. 171, No. 9, pp. 1032-1039.
ISSN: 1073-449X.
PUBLISHER: AMER THORACIC SOC, 1740 BROADWAY, NEW YORK, NY 10019-4374 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 80
ENTRY DATE: Entered STN: 22 May 2005
Last Updated on STN: 22 May 2005
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Smoking during pregnancy leads to decreased pulmonary function and increased respiratory illness in offspring. Our laboratory has previously demonstrated that many effects of smoking during pregnancy are mediated by nicotine. We now report that vitamin C supplementation can prevent some of the effects of maternal nicotine exposure on pulmonary function of offspring. Timed-pregnant rhesus monkeys were treated with 2 mg/kg/day nicotine bitartrate from Gestation Days 26 to 160. On Gestation Day 160 (term, 165 days) fetuses were delivered by C-section and subjected to pulmonary function testing the following day. Nicotine exposure significantly reduced forced expiratory flows, but supplementation of mothers with 250 mg vitamin C per day prevented the effects of nicotine on expiratory flows. Vitamin C supplementation also prevented the nicotine-induced increases in surfactant apoprotein-B protein. Neither nicotine nor nicotine plus vitamin C significantly affected levels of cortisol or cytokines, which have been shown to affect lung development and surfactant expression. Prenatal nicotine exposure significantly decreased levels of elastin content in the lungs of offspring, and these effects were slightly attenuated by vitamin C. These findings suggest that vitamin C supplementation may potentially be clinically useful to limit the deleterious effects of maternal smoking during pregnancy on offspring's lung function.

L10 ANSWER 3 OF 7 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 2003:972299 SCISEARCH
THE GENUINE ARTICLE: 740KG
TITLE: Neuronal nicotinic acetylcholine receptors: not just in brain
AUTHOR: Spindel E R (Reprint)
CORPORATE SOURCE: Oregon Hlth Sci Univ, Oregon Natl Primate Res Ctr, Div Neurosci, 505 NW 185th Ave, Beaverton, OR 97006 USA (Reprint); Oregon Hlth Sci Univ, Oregon Natl Primate Res Ctr, Div Neurosci, Beaverton, OR 97006 USA
COUNTRY OF AUTHOR: USA
SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY-LUNG CELLULAR AND MOLECULAR PHYSIOLOGY, (DEC 2003) Vol. 285, No. 6, pp. L1201-L1202.
ISSN: 1040-0605.
PUBLISHER: AMER PHYSIOLOGICAL SOC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA.
DOCUMENT TYPE: Editorial; Journal
LANGUAGE: English
REFERENCE COUNT: 29
ENTRY DATE: Entered STN: 21 Nov 2003
Last Updated on STN: 21 Nov 2003

L10 ANSWER 4 OF 7 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 2000:888476 SCISEARCH
THE GENUINE ARTICLE: 374WV
TITLE: Multiple regulation of adenylyl cyclase activity by G-protein coupled receptors in human foetal lung fibroblasts
AUTHOR: Busto R; Carrero I; Zapata P; Colas B; Prieto J C (Reprint)
CORPORATE SOURCE: Univ Alcala de Henares, Dept Biochem & Mol Biol, E-28871 Alcala De Henares, Spain (Reprint); Univ Valladolid, Dept Biochem Mol Biol & Physiol, E-42003 Soria, Spain
COUNTRY OF AUTHOR: Spain
SOURCE: REGULATORY PEPTIDES, (24 NOV 2000) Vol. 95, No. 1-3, pp. 53-58.
ISSN: 0167-0115.
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 35
ENTRY DATE: Entered STN: 2000
Last Updated on STN: 2000
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The pharmacological profile of adenylyl cyclase activity was analysed in WI-38 human foetal lung fibroblasts. Among various agents that act through G-protein coupled receptors, only the beta -adrenergic agonist isoproterenol stimulated and the tetradecapeptide somatostatin (SRIF, sst) inhibited the enzyme activity. The use of the reverse transcription-polymerase chain reaction (RT-PCR) methodology with appropriate cDNAs allowed us to identify the expression of four subtypes of SRIF transmembrane receptors (sst1-4 but not sst5 receptors) in this cell line. By RT-PCR and immunochemistry techniques, we also demonstrated the expression of stimulatory (alpha (s)) and inhibitory (alpha (i1), alpha (i2) and alpha (i3)) G-protein subunits. The known role of the adenylyl cyclase system in cell proliferation and differentiation mechanisms together with the present analysis of the corresponding regulatory network in fibroblasts of human foetal lung add knowledge on the cell line WI-38 that is widely used as a model system in studying cell growth. The importance of this cell class in normal and abnormal lung function and development reinforces the significance of these results. (C) 2000 Elsevier Science B.V. All rights reserved.

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ACCESSION NUMBER: 1999:241913 SCISEARCH
THE GENUINE ARTICLE: 182ZY
TITLE: The pulmonary neuroendocrine system: The past decade
AUTHOR: Van Lommel A (Reprint); Bolle T; Fannes W; Lauweryns J M
CORPORATE SOURCE: Katholieke Univ Leuven, Fac Med, Anat Pathol Lab, Minderbroedersstr 12, B-3000 Louvain, Belgium (Reprint); Katholieke Univ Leuven, Fac Med, Anat Pathol Lab, B-3000 Louvain, Belgium
COUNTRY OF AUTHOR: Belgium
SOURCE: ARCHIVES OF HISTOLOGY AND CYTOLOGY, (MAR 1999) Vol. 62, No. 1, pp. 1-16.
ISSN: 0914-9465.
PUBLISHER: JAPAN SOC HISTOL DOCUMENTATION NIIGATA UNIV MEDICAL SCHOOL DEPARTMENT OF ANATOMY ASAHI-MACHI, NIIGATA, 951, JAPAN.
DOCUMENT TYPE: General Review; Journal
LANGUAGE: English
REFERENCE COUNT: 115
ENTRY DATE: Entered STN: 1999
Last Updated on STN: 1999
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The pulmonary neuroendocrine system consists of specialized airway endocrine epithelial cells, associated with nerve fibres. The epithelial cells, the pulmonary neuroendocrine cells (PNEC), carl be solitary or clustered to form neuroepithelial bodies (NEB). During the last thirty years, the pulmonary neuroendocrine system has been intensively investigated and much knowledge of its function has been obtained. This text reviews work which dates from the last ten years. in this period, the picture of the pulmonary neuroendocrine system we previously had, has not fundamentally changed. The pulmonary neuroendocrine system is still regarded as an oxygen sensitive chemoreceptor with local and reflex-mediated regulatory functions, and as a regulator of airway growth and development. Continuing research has much more refined this picture. This text reviews several aspects of the pulmonary neuroendocrine system: phylogeny, the amine and peptide content of its epithelial cells, ontogeny and influence on lung development, the influence of hypoxia and nonhypoxic stimuli, immunomodulatory function, innervation and pathology. Among the discoveries of the past decade, three stand out prominently because of their great significance: additional proof that the neural component of the pulmonary neuroendocrine system is sensory, sound experimental evidence that PNEC stimulate airway epithelial cell differentiation and the discovery of a specific membrane oxygen receptor in the PNEC.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1998:623821 SCISEARCH
THE GENUINE ARTICLE: 109YQ
TITLE: Phosphodiesterase inhibitors suppress alpha(2)-adrenoceptor-mediated 5-hydroxytryptamine release from tracheae of newborn rabbits
AUTHOR: Freitag A; Wessler I; Racke K (Reprint)
CORPORATE SOURCE: Univ Bonn, Inst Pharmacol & Toxicol, Reuterstr 2B, D-53113 Bonn, Germany (Reprint); Univ Bonn, Inst Pharmacol & Toxicol, D-53113 Bonn, Germany; Univ Mainz, Dept Pharmacol, D-55101 Mainz, Germany
COUNTRY OF AUTHOR: Germany
SOURCE: EUROPEAN JOURNAL OF PHARMACOLOGY, (31 JUL 1998) Vol. 354, No. 1, pp. 67-71.
ISSN: 0014-2999.
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 21
ENTRY DATE: Entered STN: 1998
Last Updated on STN: 1998
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The outflow of 5-hydroxytryptamine (5-HT) from isolated tracheae of newborn rabbits was determined by high pressure liquid chromatography with electrochemical detection. This 5-HT outflow reflects release from neuroendocrine epithelial cells of the airway mucosa, as previously shown. Phenylephrine, via alpha(2B)-adrenoceptors, caused a transient increase in 5-HT outflow, maximally by about 250%, an effect mediated by liberation of intracellular Ca2+ as previously shown. The non-selective phosphodiesterase inhibitor 2-isobutyl-1-methylxanthine (IBMX) concentration-dependently inhibited phenylephrine-induced 5-HT release (completely at 100 mu M, IC50: 1.3 mu M). Likewise, benzafentrine (inhibitor of phosphodiesterase 3 and 4) and siguazodan (inhibitor of phosphodiesterase 3) also almost completely inhibited phenylephrine-induced 5-HT release with IC50 values of 1.7 and 4.2 mu M, respectively. Rolipram (inhibitor of phosphodiesterase 4), in a concentration of 10 mu M, which exceeds more than 10-fold the reported IC50 for phosphodiesterase 4, did not significantly affect phenylephrine-induced 5-HT release. 5-HT release induced by depolarizing concentrations of K+ (45 mM), which largely depends on extracellular Ca2+, was not affected by IBMX. In conclusion, phosphodiesterases, with characteristics of phosphodiesterase 3, appear to play an important role in the control of cyclic nucleotide mediated inhibition of 5-HT release from neuroendocrine epithelial cells. (C) 1998 Elsevier Science B.V. All rights reserved.

L10 ANSWER 7 OF 7 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1998:13500 SCISEARCH
THE GENUINE ARTICLE: YL923
TITLE: Nitric oxide, via activation of guanylyl cyclase, suppresses alpha(2)-adrenoceptor-mediated 5-hydroxytryptamine release from neuroendocrine epithelial cells of rabbit tracheae
AUTHOR: Freitag A; Wessler I; Racke K (Reprint)
CORPORATE SOURCE: Univ Bonn, Inst Pharmacol & Toxicol, Reuterstr 2B, D-53113 Bonn, Germany (Reprint); Univ Bonn, Inst Pharmacol & Toxicol, D-53113 Bonn, Germany; Univ Mainz, Dept Pharmacol, D-55101 Mainz, Germany
COUNTRY OF AUTHOR: Germany
SOURCE: NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, (DEC 1997) Vol. 356, No. 6, pp. 856-859.
ISSN: 0028-1298.
PUBLISHER: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 29
ENTRY DATE: Entered STN: 1998
Last Updated on STN: 1998
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Isolated tracheae of newborn rabbits were incubated In vitro and the outflow of 5-hydroxytryptamine (5-HT) was determined by HPLC with electrochemical detection, Evidence has previously been provided that this 5-HT outflow derives from neuroendocrine epithelial (NEE) cells of the airway mucosa. Phenylephrine, at a maximally effective concentration of 10 mu M, caused a transient increase in 5-HT outflow by about 250%, an effect mediated by alpha(2B)-adrenoceptors, as previously shown. The phenylephrine-induced 5-HT release remained unchanged in calcium-free medium, but was reduced by 75% when the tracheae were incubated in calcium-free medium which contained 0.5 mM EDTA, a treatment known to lower also intracellular calcium, The NO donor SNAP (S-nitroso-N-acetyl-penicillinamine, 10 mu M) almost completely inhibited phenylephrine-induced 5-HT release, The inhibitory effect of SNAP was prevented by ODQ, (1H-[1, 2, 4]oxadiazolo[4, 3-a]quinoxalin-1-one), an inhibitor of soluble guanylyl cyclase. In contrast, 5-HT release induced by depolarizing concentrations of potassium (45 mM), which was reduced by 96% in calcium-free medium, was not affected by SNAP, In conclusion, NO, via activation of soluble guanylyl cyclase, inhibits 5-HT release from NEE cells in a stimulus-dependent manner, alpha(2)-Adrenoceptor-mediated 5-HT release, which appears to be triggered by liberation of calcium from intracellular stores, is suppressed by NO, whereas high potassium-evoked 5-HT release which is triggered by calcium influx through voltage regulated channels, is not affected.

=> s tsutsumi y?/au
L11 727 TSUTSUMI Y?/AU

=> s l11 and calcitonin

17484 CALCITONIN
L12 6 L11 AND CALCITONIN

=> d l12 1-6 ibib abs

L12 ANSWER 1 OF 6 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 2001:571761 SCISEARCH
THE GENUINE ARTICLE: 449UF
TITLE: Osteoclast-like cells in an in vitro model of bone destruction by rheumatoid synovium
AUTHOR: Suzuki Y (Reprint); **Tsutsumi Y**; Nakagawa M; Suzuki H; Matsushita K; Beppu M; Aoki H; Ichikawa Y; Mizushima Y
CORPORATE SOURCE: St Marianna Univ, Sch Med, Dept Rheumatol, Miyamae Ku, 2-16-1 Sugao, Kawasaki, Kanagawa 2168512, Japan (Reprint); St Marianna Univ, Sch Med, Dept Rheumatol, Miyamae Ku, Kawasaki, Kanagawa 2168512, Japan; St Marianna Univ, Sch Med, Inst Med Sci, Miyamae Ku, Kawasaki, Kanagawa 2168512, Japan; St Marianna Univ, Sch Med, Dept Orthoped Surg, Miyamae Ku, Kawasaki, Kanagawa 2168512, Japan; Tokai Univ, Sch Med, Dept Pathol, Isehara, Kanagawa 25911, Japan
COUNTRY OF AUTHOR: Japan
SOURCE: RHEUMATOLOGY, (JUN 2001) Vol. 40, No. 6, pp. 673-682. ISSN: 1462-0324.
PUBLISHER: OXFORD UNIV PRESS, GREAT CLARENDON ST, OXFORD OX2 6DP, ENGLAND.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 36
ENTRY DATE: Entered STN: 27 Jul 2001
Last Updated on STN: 27 Jul 2001
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Objective. Osteoclasts may be involved in the process of rheumatoid bone destruction. To lest this hypothesis, we developed an in vitro model of bone destruction by osteoclast-like cells derived from cultured rheumatoid synovial tissue without using any inducers.

Methods. Synovial tissues were obtained from rheumatoid arthritis and osteoarthritis patients and tissue pieces of about 2 mm(3) that contained synovial lining were cultured. Multinucleated cells derived from cultured synovial tissues were studied cytochemically and morphologically for osteoclast-specific markers.

Results. Fibroblast-like and macrophage-like cells from the tissue pieces proliferated in the coexistence of lymphocytes. After 14 days of culture, multinucleated cells with tartrate-resistant acid phosphatase activity appeared. These cells expressed vacuolar Hi-ATPase, the vitronectin receptor and cathepsin K. Although binding of I-125-labelled salmon **calcitonin** was very low, the cells contained ringed structures of F-actin and showed strong bone-resorbing activity on ivory slices. Proliferation of macrophage-like cells and formation of multinucleated cells continued during 6 months of culture in the presence of fibroblast-like cells. The bone-resorbing activity of multinucleated cells derived from rheumatoid synovial tissue was much higher than that of cells from osteoarthritis synovial tissue, and was related to the disease activity of rheumatoid arthritis.

Conclusion. Our culture system reproduced in vitro the process of bone destruction by rheumatoid synovium, including the proliferation and fusion of precursor cells, polarization, activation and bone tissue resorption. This system may provide a tool for understanding the mechanisms of bone destruction in rheumatoid arthritis and for the development of new therapies to prevent bone destruction.

L12 ANSWER 2 OF 6 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1992:314509 SCISEARCH
THE GENUINE ARTICLE: HU235
TITLE: ATYPICAL CARCINOID-TUMOR OF THE LUNG WITH AMYLOID STROMA
AUTHOR: ABE Y (Reprint); UTSUNOMIYA H; **TSUTSUMI Y**
CORPORATE SOURCE: TOKAI UNIV, SCH MED, DEPT PATHOL, ISEHARA, KANAGAWA 25911, JAPAN (Reprint)
COUNTRY OF AUTHOR: JAPAN

SOURCE: ACTA PATHOLOGICA JAPONICA, (APR 1992) Vol. 42, No. 4, pp. 286-292.
ISSN: 0001-6632.
PUBLISHER: BLACKWELL SCIENCE, 54 UNIVERSITY ST, P O BOX 378, CARLTON VICTORIA 3053, AUSTRALIA.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 30
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Atypical carcinoid tumor of the lung with amyloid stroma seen in a 43-year-old woman is reported. The 47 x 45 x 33 mm tumor, located at the periphery of the S8 segment of the resected left lower lobe, revealed Dylon-positive amyloid deposition in the stroma. The argyrophilic tumor cells with occasional mitoses and focal venous involvement predominantly showed immunoreactivity of cytokeratin, neuron-specific enolase, cystatin C, chromogranin A, **calcitonin** and neuropeptide Y (NPY). Fewer cells were immunoreactive for **calcitonin** gene-related peptide (CGRP), the alpha-subunit of human chorionic gonadotropin, gastrin-releasing peptide, serotonin, methionine-enkephalin and gastrin. Immunoreactive CGRP or NPY were co-localized in **calcitonin**-positive cells. The amyloid substance was positively labeled only for CGRP. Immunostaining for amylin, a polypeptide isolated from insular amyloid in type II diabetes mellitus or insulinoma showing a 50% homology with CGRP, was negative. The specificity of immunostaining for **calcitonin**, CGRP and amylin was confirmed by immunoabsorption tests using synthetic human antigens. immunoelectron microscopic studies disclosed peptide localization in neurosecretory-type granules and CGRP immunoreactivity in extracellular amyloid fibrils. This is the first report describing CGRP as a component of amyloid of endocrine origin.

L12 ANSWER 3 OF 6 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1991:610361 SCISEARCH
THE GENUINE ARTICLE: GM818
TITLE: NEUROENDOCRINE CARCINOMA OF THE URINARY-BLADDER - CASE-REPORT AND REVIEW OF THE LITERATURE
AUTHOR: LERTPRASERTSUKE N (Reprint); **TSUTSUMI Y**
CORPORATE SOURCE: TOKAI UNIV, SCH MED, DEPT PATHOL, BOHSEIDAI, ISEHARA 25911, JAPAN
COUNTRY OF AUTHOR: JAPAN
SOURCE: JAPANESE JOURNAL OF CLINICAL ONCOLOGY, (JUN 1991) Vol. 21, No. 3, pp. 203-210.
ISSN: 0368-2811.
PUBLISHER: FOUNDATION PROMOTION CANCER RESEARCH, NATL CANCER CENTER HOSPITAL 1-1 TSUKIJI 5-CHOME CHUO-KU, TOKYO 104, JAPAN.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: CLIN
LANGUAGE: English
REFERENCE COUNT: No References Keyed
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A 63-year-old Japanese man complained of hematuria and pollakisuria for several months. Computed tomography and cystography disclosed an infiltrative tumor mass in the irregularly thickened apical and posterior walls of the urinary bladder. Narrowing of the vesical lumen and posterior extension of the tumor into the pelvic cavity were also noted. After palliative ureterocutaneostomy, 60 Gy irradiation was given locally. The patient died of cachexia seven months later. Autopsy revealed neuroendocrine carcinoma of the urinary bladder with extensive invasions and metastases to the pelvic and peritoneal cavities, liver, lungs, vertebrae, left kidney and retroperitoneal lymph nodes. Histologically, atypical tumor cells with eosinophilic cytoplasm formed solid nests and anastomosing cords with pseudoglandular structures. No other histologic tumor components were included. An intact urachal remnant was found at the vesical apex while features of metaplastic cystitis were absent. In addition to positive carcinoembryonic antigen and cytokeratin, the argyrophilic cancer cells were immunoreactive for neuron-specific enolase,

chromogranin A, serotonin, neuropeptide Y, glicentin, somatostatin, neurotensin and **calcitonin**. Ultrastructurally, neurosecretory-type granules, with a mean diameter of 166 nm, were identified in the cytoplasm of the tumor cells. To discuss the histogenesis of the tumor, 44 previously reported cases of neuroendocrine carcinoma of the urinary bladder were reviewed.

L12 ANSWER 4 OF 6 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1990:639490 SCISEARCH
THE GENUINE ARTICLE: EJ206
TITLE: IS HELODERMIN-LIKE IMMUNOREACTIVITY IN HUMAN THYROID C-CELLS DUE TO A SALMON **CALCITONIN**-LIKE SUBSTANCE
AUTHOR: **TSUTSUMI Y (Reprint)**; KAMOSHIDA S; IGUCHI K; MOCHIZUKI T; YANAIHARA N
CORPORATE SOURCE: TOKAI UNIV, SCH MED, DEPT PATHOL, ISEHARA, KANAGAWA 25911, JAPAN (Reprint); ISEHARA KYODO HOSP, DIV PATHOL, ISEHARA, JAPAN; SHIZUOKA COLL PHARMACEUT SCI, BIOORGAN CHEM LAB, SHIZUOKA 422, JAPAN
COUNTRY OF AUTHOR: JAPAN
SOURCE: REGULATORY PEPTIDES, (29 OCT 1990) Vol. 31, No. 1, pp. 11-21.
ISSN: 0167-0115.
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 25
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

L12 ANSWER 5 OF 6 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1989:499162 SCISEARCH
THE GENUINE ARTICLE: AQ984
TITLE: IMMUNOHISTOCHEMICAL ANALYSIS OF **CALCITONIN** AND **CALCITONIN** GENE-RELATED PEPTIDE IN HUMAN-LUNG
AUTHOR: **TSUTSUMI Y (Reprint)**
CORPORATE SOURCE: TOKAI UNIV, SCH MED, DEPT PATHOL, ISEHARA, KANAGAWA 25911, JAPAN (Reprint)
COUNTRY OF AUTHOR: JAPAN
SOURCE: HUMAN PATHOLOGY, (SEP 1989) Vol. 20, No. 9, pp. 896-902.
ISSN: 0046-8177.
PUBLISHER: W B SAUNDERS CO, INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: English
REFERENCE COUNT: 32
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

L12 ANSWER 6 OF 6 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1983:364649 SCISEARCH
THE GENUINE ARTICLE: QY142
TITLE: SIMULTANEOUS IMMUNOHISTOCHEMICAL LOCALIZATION OF GASTRIN RELEASING PEPTIDE (GRP) AND **CALCITONIN** (CT) IN HUMAN BRONCHIAL ENDOCRINE-TYPE CELLS
AUTHOR: **TSUTSUMI Y (Reprint)**; OSAMURA R Y; WATANABE K; YANAIHARA N
CORPORATE SOURCE: TOKAI UNIV, SCH MED, DEPT PATHOL, ISEHARA, KANAGAWA 25911, JAPAN (Reprint); SHIZUOKA COLL PHARM, BIOORGAN CHEM LAB, SHIZUOKA 422, JAPAN
COUNTRY OF AUTHOR: JAPAN
SOURCE: VIRCHOWS ARCHIV A-PATHOLOGICAL ANATOMY AND HISTOPATHOLOGY, (1983) Vol. 400, No. 2, pp. 163-171.
ISSN: 0174-7398.
PUBLISHER: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010.

DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 23
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

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=> sel L12 5 CIT
E3 THROUGH E3 ASSIGNED

=> s E3
L13          19 "TSUTSUMI Y, 1989, V20, P896,?"/RE
                ("TSUTSUCHI Y, 1989, V20, P896,"?/RE)

=> d his

     (FILE 'HOME' ENTERED AT 20:25:55 ON 12 APR 2007)

     FILE 'SCISEARCH' ENTERED AT 20:26:13 ON 12 APR 2007
L1           198 S STAHLMAN M?/AU
L2          1797 S GRAY M?/AU
L3            49 S L1 AND L2
L4         11201 S JOHNSON M?/AU
L5             5 S L4 AND L3
                 SEL L5 4 CIT
L6            21 S E1

     FILE 'CAPLUS' ENTERED AT 20:29:54 ON 12 APR 2007
L7            11 S E1
L8            11 S L6 OR L7

     FILE 'CAPLUS' ENTERED AT 20:32:20 ON 12 APR 2007

     FILE 'SCISEARCH' ENTERED AT 20:32:42 ON 12 APR 2007

     FILE 'CAPLUS' ENTERED AT 20:32:43 ON 12 APR 2007
L9             0 S L7 NOT L6

     FILE 'SCISEARCH' ENTERED AT 20:50:35 ON 12 APR 2007
                 SEL L6 11 CIT
L10            7 S E2
L11          727 S TSUTSUMI Y?/AU
L12            6 S L11 AND CALCITONIN
                 SEL L12 5 CIT
L13           19 S E3

=> s l13 not l6
L14          14 L13 NOT L6

=> s l14 not l10
L15          14 L14 NOT L10

=> d l15 1-14 ibib abs

L15 ANSWER 1 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
     Corporation on STN
ACCESSION NUMBER: 2003:437138 SCISEARCH
THE GENUINE ARTICLE: 678FA
TITLE: The diffuse endocrine system: From embryogenesis to carcinogenesis
AUTHOR: Montuenga L M (Reprint); Guembe L; Burrell M A; Bodegas M E; Calvo A; Sola J J; Sesma P; Villaro A C
SOURCE: PROGRESS IN HISTOCHEMISTRY AND CYTOCHEMISTRY, (2003) Vol. 38, No. 2, pp. 155-+.
ISSN: 0079-6336.
PUBLISHER: URBAN & FISCHER VERLAG, BRANCH OFFICE JENA, P O BOX 100537, D-07705 JENA, GERMANY.
DOCUMENT TYPE: General Review; Journal
LANGUAGE: English
REFERENCE COUNT: 523
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ENTRY DATE: Entered STN: 9 Jun 2003
Last Updated on STN: 9 Jun 2003
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB In the present review we will summarise the current knowledge about the cells comprising the Diffuse Endocrine System (DES) in mammalian organs. We will describe the morphological, histochemical and functional traits of these cells in three major systems gastrointestinal, respiratory and prostatic. We will also focus on some aspects of their ontogeny and differentiation, as well as to their relevance in carcinogenesis, especially in neuroendocrine tumors. The first chapter describes the characteristics of DES cells and some of their specific biological and biochemical traits. The second chapter deals with DES in the gastrointestinal organs, with special reference to the new data on the differentiation mechanisms that leads to the appearance of endocrine cells from an undifferentiated stem cell. The third chapter is devoted to DES of the respiratory system and some aspects of its biological role, both, during development and adulthood. Neuroendocrine hyperplasia and neuroendocrine lung tumors are also addressed. Finally, the last chapter deals with the prostatic DES, discussing its probable functional role and its relevance in hormone-resistant prostatic carcinomas.

L15 ANSWER 2 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 2002:552902 SCISEARCH
THE GENUINE ARTICLE: 566WF
TITLE: Immunocytochemical localization of prohormone convertases PC1 and PC2 in the mouse thyroid gland and respiratory tract
AUTHOR: Kurabuchi S; Tanaka S (Reprint)
CORPORATE SOURCE: Univ Shizuoka, Dept Biol, Fac Sci, Ohya 836, Shizuoka 4228529, Japan (Reprint); Univ Shizuoka, Dept Biol, Fac Sci, Shizuoka 4228529, Japan; Nippon Dent Univ Tokyo, Dept Histol, Sch Dent, Tokyo, Japan
COUNTRY OF AUTHOR: Japan
SOURCE: JOURNAL OF HISTOCHEMISTRY & CYTOCHEMISTRY, (JUL 2002) Vol. 50, No. 7, pp. 903-909.
ISSN: 0022-1554.
PUBLISHER: HISTOCHEMICAL SOC INC, UNIV WASHINGTON, DEPT BIOSTRUCTURE, BOX 357420, SEATTLE, WA 98195 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 56
ENTRY DATE: Entered STN: 19 Jul 2002
Last Updated on STN: 19 Jul 2002
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB We examined immunocytochemical localization of the prohormone convertases, PC1 and PC2, in the thyroid gland and respiratory tract of the adult mouse using the indirect enzyme- and immunogold-labeled antibody methods for light and electron microscopy, respectively. In the thyroid gland, PC1- and/or PC2-immunoreactive cells were cuboidal, scattered in the follicular epithelium and in the interfollicular spaces. When serial sections were immunostained with anti-calcitonin, anti-PC1, anti-calcitonin-gene-related-peptide (CGRP), and anti-PC2 sera, respectively, localization of both PC1 and PC2 was restricted to the calcitonin/CGRP-producing parafollicular cells. In the respiratory tract, only PC1 immunoreactivity was observed in the basal granulated neuroendocrine cells, which were scattered in the tracheal epithelium. Consecutive sections immunostained with anti-PC1 and anti-CGRP sera showed that a subpopulation of these PC1-immunoreactive cells contained CGRP. Double immunogold electron microscopy of the thyroid parafollicular cells revealed that calcitonin- and/or CGRP-immunopositive secretory granules were also labeled with both PC1 and PC2. These findings suggest that procalcitonin is proteolytically cleaved by PC2 alone or by PC2 together with PC1, and that the proCGRP is cleaved by PC1.

L15 ANSWER 3 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 2000:739009 SCISEARCH
THE GENUINE ARTICLE: 358AJ
TITLE: Quantitative analysis of pulmonary neuroendocrine cell distribution of the fetal small airways using double-labeled immunohistochemistry
AUTHOR: Aita K (Reprint); Doi M; Tanno K; Oikawa H; Oo M T; Ohashi N; Misawa S
CORPORATE SOURCE: Univ Tsukuba, Inst Community Med, Dept Legal Med, Tsukuba, Ibaraki 305, Japan (Reprint); Tsukuba Med Examiners Off, Tsukuba, Ibaraki, Japan
COUNTRY OF AUTHOR: Japan
SOURCE: FORENSIC SCIENCE INTERNATIONAL, (11 SEP 2000) Vol. 113, No. 1-3, Sp. iss. SI, pp. 183-187.
ISSN: 0379-0738.
PUBLISHER: ELSEVIER SCI IRELAND LTD, CUSTOMER RELATIONS MANAGER, BAY 15, SHANNON INDUSTRIAL ESTATE CO, CLARE, IRELAND.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 10
ENTRY DATE: Entered STN: 2000
Last Updated on STN: 2000
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Pulmonary neuroendocrine cells (PNECs) are supposed to play an essential role in development of fetal lung and neonatal respiratory adaptation. Some previous studies have suggested the close relation between PNECs and sudden infant death syndrome (SIDS). To investigate how PNECs distribute to the thermal bronchioli of fetal lung may be a clue to clarify this relation. Since it is difficult to distinguish bronchiole from alveolus in fetal lung, we performed double immunostaining with antibody against chromogranin a (CGA) and cu-smooth muscle actin (SMA) which can make clear distinction between them. In this study, formalin-fixed, paraffin-embedded lung tissues from 18 autopsy cases from 16 to 28 weeks of gestation were assessed. CGA immunopositive cells were counted and the length of basement membranes of terminal bronchioli was measured with computed image analyzer. Density of PNECs was expressed as the number of immunopositive cells per millimeter of basement membrane. Terminal bronchiole stained with SMA was dearly distinguished from alveolus at 16 weeks. With gestational age, CGA immunopositive PNECs were gradually increased in 2 folds by the 25th week. After that, their density wasn't changed significantly until termination. It is suggested that PNECs in terminal bronchiole was playing an important role in morphogenesis of alveolar ducts and alveolar sacks. (C) 2000 Elsevier Science Ireland Ltd. All rights reserved.

L15 ANSWER 4 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1998:619805 SCISEARCH
THE GENUINE ARTICLE: 111AA
TITLE: Calcitonin gene-related peptide expression is altered in pulmonary neuroendocrine cells in developing lungs of rats with congenital diaphragmatic hernia
AUTHOR: Ijsselstijn H; Hung N; de Jongste J C; Tibboel D; Cutz E (Reprint)
CORPORATE SOURCE: Hosp Sick Children, Dept Pathol, 555 Univ Ave, Toronto, ON M5G 1X8, Canada (Reprint); Hosp Sick Children, Dept Pathol, Toronto, ON M5G 1X8, Canada; Hosp Sick Children, Inst Res, Toronto, ON M5G 1X8, Canada; Erasmus Univ, Dept Pediat Surg, Rotterdam, Netherlands; Erasmus Univ, Dept Pediat, Rotterdam, Netherlands; Univ Rotterdam Hosp, Sophia Childrens Hosp, Rotterdam, Netherlands
COUNTRY OF AUTHOR: Canada; Netherlands
SOURCE: AMERICAN JOURNAL OF RESPIRATORY CELL AND MOLECULAR BIOLOGY (AUG 1998) Vol. 19, No. 2, pp. 278-285.
ISSN: 1044-1549.
PUBLISHER: AMER THORACIC SOC, 1740 BROADWAY, NEW YORK, NY 10019-4374 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 36
ENTRY DATE: Entered STN: 1998
Last Updated on STN: 1998
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Congenital diaphragmatic hernia (CDH) is associated with high neonatal mortality from lung hypoplasia and persistent pulmonary

hypertension. Pulmonary neuroendocrine cells (PNEC) produce calcitonin gene-related peptide (CGRP), a potent vasodilator. We previously reported altered distribution of CGRP-positive PNEC in full-term rats with CDH, that may lead to an imbalance in vasoactive mediators. In the present study we examined the expression of CORP-positive PNEC during lung development in rats with CDH induced by 2,4-dichlorophenyl-p-nitrophenylether (Nitrofen). Cesarean sections were performed on Days 16, 18, 20, or 22, and the lungs were immunostained for CGRP and immunoreactive cells were quantitated through image analysis. On Day 16, CGRP-immunoreactive staining was negative; on Day 18, CGRP-immunoreactive cells were found in all controls (not exposed to Nitrofen), whereas in CDH pups, CGRP-positive cells were present in only four of six cases. On Day 20, CGRP immunoreactivity was similar in CDH pups, Nitrofen-exposed pups without CDH, and controls. On Day 22 (term), significantly more CORP-positive cells (i.e., number of positive cells per surface area [mm(2)] or lung volume [mm(3)]) were found in ipsilateral lungs of CDH pups than in controls ($P < 0.05$). The difference was even more striking in contralateral lungs of CDH pups ($P < 0.001$), ruling out nonspecific effects of Nitrofen. In CDH lungs, the proportion of immunostained epithelium and the size of the neuroendocrine cell clusters (neuroepithelial bodies [NEB]) were not significantly different from those of controls. On Day 22, supraoptimal dilution immunocytochemistry yielded similar results in CDH pups and controls. We conclude that in CDH, CGRP expression in PNEC and NEB is delayed during early stages of lung development. Because CGRP also exhibits growth factor-like properties for endothelium and epithelial cells, the lack of this factor during a crucial developmental stage (canalicular period) may be causally related to lung hypoplasia.

L15 ANSWER 5 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1995:199991 SCISEARCH
THE GENUINE ARTICLE: QM211
TITLE: PULMONARY NEUROENDOCRINE CELLS IN NEONATAL RATS WITH CONGENITAL DIAPHRAGMATIC-HERNIA
AUTHOR: IJSSELSTIJN H (Reprint); PERRIN D G; DEJONGSTE J C; CUTZ E; TIBBOEL D
CORPORATE SOURCE: SOPHIA CHILDRENS UNIV HOSP, DEPT PEDIAT SURG, 3015 GJ ROTTERDAM, NETHERLANDS; ERASMUS UNIV ROTTERDAM, DEPT PEDIAT SURG, 3000 DR ROTTERDAM, NETHERLANDS; ERASMUS UNIV ROTTERDAM, DEPT PEDIAT, DIV RESP MED, ROTTERDAM, NETHERLANDS; HOSP SICK CHILDREN, RES INST, MRC, LUNG DEV GRP, TORONTO, ON M5G 1X8, CANADA; HOSP SICK CHILDREN, DEPT PATHOL, MRC, LUNG DEV GRP, TORONTO, ON M5G 1X8, CANADA
COUNTRY OF AUTHOR: NETHERLANDS; CANADA
SOURCE: JOURNAL OF PEDIATRIC SURGERY, (MAR 1995) Vol. 30, No. 3, pp. 413-415.
ISSN: 0022-3468.
PUBLISHER: W B SAUNDERS CO, INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: CLIN
LANGUAGE: English
REFERENCE COUNT: 20
ENTRY DATE: Entered STN: 1995
Last Updated on STN: 1995
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Lung hypoplasia and persistent pulmonary hypertension are the principal causes of high mortality and morbidity in infants with congenital diaphragmatic hernia (CDH). Amine and peptide producing pulmonary neuroendocrine cells (PNEC), widely distributed throughout the airway mucosa, are thought to play an important role in both pulmonary development and regulation of pulmonary vascular tone. Furthermore, recent studies show increased levels of calcitonin gene-related peptide (CGRP), a pulmonary vasodilator produced by PNEC, during chronic hypoxia. The article reports data on morphometric analysis of CORP immunoreactive PNEC clusters (neuroepithelial bodies, NEB) in a rat model of CDH. CDH was induced in neonatal Sprague Dawley rats by oral administration of 2,4-dichloro-phenyl-p-nitrophenylether (Nitrofen; Rohm Haas, Philadelphia, PA) to the mother at 10 days of gestation. Sections of lungs from term neonatal rats with and without CDH and controls were immunostained for

CGRP (marker of NEB) with specific antibody against rat CGRP. NEB size and number of NEB/area of lung were assessed using a semiautomatic image analysis system. In lungs of neonatal rats with CDH, the number of NEB per surface area of lung parenchyma was significantly increased compared with the age matched controls, Although the mean size of NEB was larger in CDH, the differences were not significant. This is the first study of PNEC in CDH. Whether the phenomenon observed in this study results in altered NEB function including imbalance in vasoactive mediators requires further studies, especially in the human being. Copyright (C) 1995 by W.B. Saunders Company

L15 ANSWER 6 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1994:424640 SCISEARCH
THE GENUINE ARTICLE: NV118
TITLE: SMALL-CELL LUNG-CARCINOMA CELL-LINES EXPRESS MESSENGER-RNA FOR CALCITONIN AND ALPHA-CALCITONIN AND BETA-CALCITONIN GENE-RELATED PEPTIDES
AUTHOR: KELLEY M J (Reprint); SNIDER R H; BECKER K L; JOHNSON B E
CORPORATE SOURCE: NCI, USN, MED ONCOL BRANCH, BLDG 8, ROOM 5101, BETHESDA, MD 20889 (Reprint); VET AFFAIRS MED CTR, WASHINGTON, DC 20422; GEORGE WASHINGTON UNIV, WASHINGTON, DC 20037
COUNTRY OF AUTHOR: USA
SOURCE: CANCER LETTERS, (15 JUN 1994) Vol. 81, No. 1, pp. 19-25.
ISSN: 0304-3835.
PUBLISHER: ELSEVIER SCI IRELAND LTD, CUSTOMER RELATIONS MANAGER, BAY 15, SHANNON INDUSTRIAL ESTATE CO, CLARE, IRELAND.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 23
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Calcitonin (CT) and calcitonin gene related peptide (CGRP) are derived from preprohormones encoded by three mRNAs (CT, alpha-CGRP and beta-CGRP) from two genes (CALC1 and CALC2) on chromosome 11. Among 16 small cell lung cancer cell lines examined by RNase protection assay, 9 (56%) had detectable CT mRNA, 8 (50%) had alpha-CGRP mRNA, and 13 (81%) had beta-CGRP mRNA. At least one CALC1 transcript (CT or alpha-CGRP) was found in 11 (69%) cell lines with three having only CT mRNA, two having only alpha-CGRP mRNA, and six having both. beta-CGRP mRNA was detected in all of these 11 cell lines expressing a CALC1 transcript. Immunoreactive CT was detected by radioimmunoassay in eight of nine SCLC cell lines expressing CT mRNA, and immunoreactive CGRP was detected in 12 of 13 cell lines expressing a CGRP mRNA. The variety of expression of these three peptides in different cell lines of the same cell type should provide a useful system for further study of the control of expression of these peptides.

L15 ANSWER 7 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1994:378457 SCISEARCH
THE GENUINE ARTICLE: NP717
TITLE: CALCITONIN ELEVATION IN SMALL-CELL LUNG-CANCER WITHOUT ECTOPIC PRODUCTION
AUTHOR: KELLEY M J (Reprint); BECKER K L; RUSHIN J M; VENZON D; PHELPS R; IHDE D C; BLISS D P; MELBY K; SNIDER R H; JOHNSON B E
CORPORATE SOURCE: NATL NAVAL MED CTR, NCI, NAVY MED ONCOL BRANCH, BLDG 8, ROOM 5101, BETHESDA, MD 20889 USA (Reprint); NCI, BIOSTAT & DATA MANAGEMENT SECT, BETHESDA, MD USA; VET ADM MED CTR, DIV ENDOCRINOL, WASHINGTON, DC 20422 USA; GEORGE WASHINGTON UNIV, WASHINGTON, DC USA; ST JOSEPHS HOSP, ATLANTA, GA USA; NATL NAVAL MED CTR, LAB DEPT, BETHESDA, MD USA
COUNTRY OF AUTHOR: USA
SOURCE: AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE (JAN 1994) Vol. 149, No. 1, pp. 183-190.
ISSN: 1073-449X.

PUBLISHER: AMER THORACIC SOC, 1740 BROADWAY, NEW YORK, NY 10019-4374 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 39
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 31 Aug 2006

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB To determine the relative contribution of ectopic calcitonin (CT) production versus nonectopic secretion of CT in patients with small cell lung cancer (SCLC), serum and urine immunoreactive CT (iCT) levels of 86 different subjects were measured by radioimmunoassay (RIA) using two polyclonal antisera (Ab3b and Ab4). The subjects included 49 previously untreated patients with SCLC, 17 smokers, and 20 nonsmokers. Serum and urine iCT values were highest in the patients with SCLC, intermediate in the smokers, and lowest in the nonsmokers ($p < 0.0003$). Sixteen of the 49 patients with SCLC had tumor cell lines available for determination of CT mRNA expression by RNase protection assay (RPA) and iCT production by RIA. CT mRNA was detected in nine of 16 subjects and iCT in eight of 16. The tumor cell lines of seven patients had undetectable CT by both RPA and RIA, and of these, five had elevated urine or serum iCT values compared with those of nonsmokers, and two had levels above all values in the smoker group. Immunohistochemical staining of formalin-fixed, paraffin-embedded tumor samples detected iCT in two of four tumors from patients whose tumor cell lines had CT mRNA by RPA and iCT by RIA, but in none of six whose tumor cell lines had undetectable CT mRNA. Thus, increased iCT values in some patients with SCLC are likely due to sources other than CT production by tumor cells.

L15 ANSWER 8 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text Corporation on STN
ACCESSION NUMBER: 1994:298011 SCISEARCH
THE GENUINE ARTICLE: NK671
TITLE: DETECTION OF CALCITONIN-GENE EXPRESSION IN HUMAN INFANT AND MONKEY CAROTID-BODY CHIEF CELLS BY IN-SITU HYBRIDIZATION
AUTHOR: WANG Y Y (Reprint); CUTZ E; PERRIN D G
CORPORATE SOURCE: HOSP SICK CHILDREN, DEPT PATHOL, TORONTO M5G 1X8, ON, CANADA; HOSP SICK CHILDREN, RES INST, TORONTO M5G 1X8, ON, CANADA; UNIV TORONTO, TORONTO, ON, CANADA
COUNTRY OF AUTHOR: CANADA
SOURCE: CELL AND TISSUE RESEARCH, (MAY 1994) Vol. 276, No. 2, pp. 399-402.
ISSN: 0302-766X.
PUBLISHER: SPRINGER, 233 SPRING STREET, NEW YORK, NY 10013 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 26
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Calcitonin mRNA was detected in human and monkey carotid bodies by in situ hybridization histochemistry, using a S-35-labeled oligonucleotide probe for human calcitonin. In both human and monkey carotid body, moderate to high hybridization signal for calcitonin mRNA was observed in all cases. The hybridization signal in the formalin-fixed, paraffin-embedded samples was comparable to that obtained from frozen paraformaldehyde-fixed tissue. Our observations extend the finding of calcitonin-like immunoreactivity in the carotid body chief cells and indicate that calcitonin is produced in the carotid body, probably in the chief cells.

L15 ANSWER 9 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text Corporation on STN
ACCESSION NUMBER: 1993:420598 SCISEARCH
THE GENUINE ARTICLE: LK721
TITLE: CALCITONIN-GENE-RELATED PEPTIDE IN SMALL-CELL LUNG CARCINOMAS
AUTHOR: SCHIFTER S (Reprint); JOHANNSEN L; BUNKER C; BRICKELL P; BORK E; LINDEBERG H; FABER J

CORPORATE SOURCE: GLOSTRUP UNIV HOSP, DEPT CLIN PHYSIOL & NUCL MED, DK-2600 GLOSTRUP, DENMARK (Reprint); RIGSHOSP, DEPT CLIN PHYSIOL & NUCL MED, DK-2100 COPENHAGEN, DENMARK; ODENSE HOSP, DEPT NEUROL, DK-5000 ODENSE, DENMARK; UNIV COLL & MIDDLESEX SCH MED, DEPT BIOCHEM, MED MOLEC BIOL UNIT, LONDON W1P 6DB, ENGLAND; BISPEBJERG HOSP, DEPT INTERNAL MED C, DK-2400 COPENHAGEN, DENMARK; HERLEV UNIV HOSP, DEPT ENDOCRINOL F, DK-2730 HERLEV, DENMARK; AARHUS UNIV HOSP, DEPT OTOLARYNGOL, DK-8000 AARHUS, DENMARK
COUNTRY OF AUTHOR: DENMARK; ENGLAND
SOURCE: CLINICAL ENDOCRINOLOGY, (JUL 1993) Vol. 39, No. 1, pp. 59-65.
ISSN: 0300-0664.
PUBLISHER: BLACKWELL SCIENCE LTD, OSNEY MEAD, OXFORD, OXON, ENGLAND OX2 0EL.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: English
REFERENCE COUNT: 31
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB OBJECTIVE Calcitonin gene-related peptide (CGRP) is a regulatory peptide encoded by the calcitonin gene. CGRP is expressed in increased amounts by the cells of medullary thyroid carcinomas and has been demonstrated by immunohistochemistry to occur in neuroendocrine cells and nerve fibres of lung tissue.

MEASUREMENTS Serum CGRP levels were measured in patients with small cell lung carcinomas before treatment (n=74) and immediately before the second course of chemotherapy (n=30). In-situ hybridization and immunohistochemistry were performed on tumour tissue and CGRP was extracted from two tumours and characterized by gel chromatography and high pressure liquid chromatography.

RESULTS Serum CGRP levels were elevated in small cell lung carcinomas when compared with healthy controls of similar age and sex (median values 55.0 vs 36.6 pmol/l, $P<0.001$), and 27% had levels above the upper normal range. Serum CGRP levels decreased following the initial course of chemotherapy ($P<0.05$) but remained elevated when compared to the controls ($P<0.001$). In-situ hybridization for CGRP mRNA was positive in three of 17 tumours and immunohistochemistry was positive in seven of 31 tumours investigated. CGRP immunoreactivity extracted from two tumours was characterized by gel chromatography and high pressure liquid chromatography. A major part of the immunoreactivity was demonstrated to represent the intact molecule.

CONCLUSIONS We found that patients with small cell lung carcinomas had elevated concentration of serum calcitonin gene-related peptide but only 27% had values above the upper normal range. Serum CGRP is therefore of limited value as a tumour marker. Intact CGRP can be extracted from tumour tissue, but in-situ hybridization and immunohistochemistry showed positive reactions in only a few of the tumours investigated. The elevated serum CGRP levels are therefore likely to be largely of extratumoral origin.

L15 ANSWER 10 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text Corporation on STN
ACCESSION NUMBER: 1992:314509 SCISEARCH
THE GENUINE ARTICLE: HU235
TITLE: ATYPICAL CARCINOID-TUMOR OF THE LUNG WITH AMYLOID STROMA
AUTHOR: ABE Y (Reprint); UTSUNOMIYA H; TSUTSUMI Y
CORPORATE SOURCE: TOKAI UNIV, SCH MED, DEPT PATHOL, ISEHARA, KANAGAWA 25911, JAPAN (Reprint)
COUNTRY OF AUTHOR: JAPAN
SOURCE: ACTA PATHOLOGICA JAPONICA, (APR 1992) Vol. 42, No. 4, pp. 286-292.
ISSN: 0001-6632.
PUBLISHER: BLACKWELL SCIENCE, 54 UNIVERSITY ST, P O BOX 378, CARLTON VICTORIA 3053, AUSTRALIA.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 30

ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Atypical carcinoid tumor of the lung with amyloid stroma seen in a 43-year-old woman is reported. The 47 x 45 x 33 mm tumor, located at the periphery of the S8 segment of the resected left lower lobe, revealed Dylon-positive amyloid deposition in the stroma. The argyrophilic tumor cells with occasional mitoses and focal venous involvement predominantly showed immunoreactivity of cytokeratin, neuron-specific enolase, cystatin C, chromogranin A, calcitonin and neuropeptide Y (NPY). Fewer cells were immunoreactive for calcitonin gene-related peptide (CGRP), the alpha-subunit of human chorionic gonadotropin, gastrin-releasing peptide, serotonin, methionine-enkephalin and gastrin. Immunoreactive CGRP or NPY were co-localized in calcitonin-positive cells. The amyloid substance was positively labeled only for CGRP. Immunostaining for amylin, a polypeptide isolated from insular amyloid in type II diabetes mellitus or insulinoma showing a 50% homology with CGRP, was negative. The specificity of immunostaining for calcitonin, CGRP and amylin was confirmed by immunoabsorption tests using synthetic human antigens. immunoelectron microscopic studies disclosed peptide localization in neurosecretory-type granules and CGRP immunoreactivity in extracellular amyloid fibrils. This is the first report describing CGRP as a component of amyloid of endocrine origin.

L15 ANSWER 11 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 1992:193329 SCISEARCH
THE GENUINE ARTICLE: HJ928
TITLE: DIFFERENTIAL DIAGNOSTIC PATTERNS OF LUNG NEUROENDOCRINE TUMORS - A CLINICOPATHOLOGICAL AND IMMUNOHISTOCHEMICAL STUDY OF 122 CASES
AUTHOR: BONATO M (Reprint); CERATI M; PAGANI A; PAPOTTI M; BOSI F; BUSSOLATI G; CAPELLA C
CORPORATE SOURCE: UNIV PAVIA, FAC MED 2, DEPT HUMAN PATHOL, VIALE BORRI 57, I-21100 VARESE, ITALY; POLICLIN SAN MATTEO, IST RICOVERO & CURA CARRATIER SCI, DEPT PATHOL, PAVIA, ITALY; UNIV TURIN, DEPT BIOMED SCI & HUMAN ONCOL, I-10124 TURIN, ITALY
COUNTRY OF AUTHOR: ITALY
SOURCE: VIRCHOWS ARCHIV A-PATHOLOGICAL ANATOMY AND HISTOPATHOLOGY, (MAR 1992) Vol. 420, No. 3, pp. 201-211.
ISSN: 0174-7398.
PUBLISHER: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 44
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A series of 3 tumourlets (TLs), 81 typical carcinoids (TCs), 14 atypical carcinoids (ACs) (well-differentiated neuroendocrine carcinomas, WDNCs) and 24 small cell-intermediate cell carcinomas (SCC-ICCs) of the lung were studied. HIstopatological features were correlated with amine and peptide hormone immunoreactivity and with clinical data. All types of tumours expressed general neuroendocrine (NE) markers: Grimelius positivity and chromogranins were detected more frequently in well-differentiated (TLs, TCs) than in less well differentiated tumours [ACs (WDNCs) and SCC-ICCs] whereas neuron specific enolase (NSE) was prominent in the latter tumours. TLs and peripheral TCs were benign, often showing a paraganglioid pattern and frequently expressing gastrin-releasing peptide (GRP), which is present in the peripheral airways of normal lung. Central TCs were associated with lymph node metastases in 8.5% of the cases, frequently had a trabecular architecture, often associated with human milk fat globule 2 (HMFG2)-positive acinar and rosette-like structures, and were mainly immunostained for the alpha-subunit of human chorionic gonadotrophin (alpha-hCG) and serotonin. ACs (WDNCs) were associated with intrathoracic and/or extrathoracic metastases in 57.1% of the cases with a mortality rate of 35.7%. Their histological and cytological features were intermediate between those of TCs and SCC-ICCs. ACs (WDNCs) expressed serotonin and alpha-hCG less frequently than TCs. All SCC-ICCs were surgically treated and displayed a

mortality rate of 91.6% with a mean survival of 10.2 months after operation. These tumours were characterized by high expression of HMFG2 and NSE, while the expression of both orthotopic (serotonin, GRP) and ectopic (ACTH) specific NE substances was very low. Since all TCs (either central or peripheral) had a favourable outcome, while about 36% of ACs (WDNCs) were fatal, the latter seem more appropriately designated "well-differentiated NE carcinomas". The differential diagnosis between different NE tumours of the lung is important and is mainly based on morphology. Both panendocrine and specific immunohistochemical markers are helpful in distinguishing the less aggressive, mostly benign varieties from the more malignant varieties.

L15 ANSWER 12 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 1991:335987 SCISEARCH
THE GENUINE ARTICLE: FQ329
TITLE: COOCCURRENCE OF IMMUNOREACTIVE CALCITONIN AND CALCITONIN GENE-RELATED PEPTIDE IN NEUROENDOCRINE CELLS OF RAT LUNGS
AUTHOR: SHIMOSEGAWA T (Reprint); SAID S I
CORPORATE SOURCE: UNIV ILLINOIS, COLL MED, DEPT MED, 1940 W TAYLOR ST, CHICAGO, IL 60612; VET AFFAIRS W SIDE MED CTR, CHICAGO, IL 60612
COUNTRY OF AUTHOR: USA
SOURCE: CELL AND TISSUE RESEARCH, (JUN 1991) Vol. 264, No. 3, pp. 555-561.
ISSN: 0302-766X.
PUBLISHER: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 51
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Neuroendocrine cells of the lung, occurring singly or in clusters known as neuroepithelial bodies, contain a variety of biologically active compounds, including several neuropeptides. We have investigated the localization of calcitonin and calcitonin gene-related peptide (CGRP) within single and grouped neuroendocrine cells in the respiratory epithelium of rats by an immunohistochemical double-staining technique which uses specific antisera raised in heterogeneous animal species. Calcitonin- and CGRP-immunoreactivities were nearly totally co-localized in both single neuroendocrine cells and neuroepithelial bodies. CGRP-immunoreactivity was also present in neurons in the jugular, nodose and dorsal root ganglia. The calcitonin-immunoreactivity in neuroendocrine cells, as in thyroid parafollicular (C) cells, was abolished by preincubation of the anticalcitonin serum with synthetic calcitonin. The CGRP-immunoreactivity in neuroendocrine cells and in the neuronal cells was abolished by preincubation of anti-CGRP serum with synthetic CGRP. Thus, while the calcitonin gene is expressed exclusively or predominantly as either calcitonin or CGRP in all other tissues except thyroid C-cells, our results strongly suggest that both peptides are expressed in the rat bronchopulmonary neuroendocrine cells.

L15 ANSWER 13 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 1991:305209 SCISEARCH
THE GENUINE ARTICLE: FM530
TITLE: NEUROENDOCRINE TUMORS OF THE LUNG WITH PROPOSED CRITERIA FOR LARGE-CELL NEUROENDOCRINE CARCINOMA - AN ULTRASTRUCTURAL, IMMUNOHISTOCHEMICAL, AND FLOW CYTOMETRIC STUDY OF 35 CASES
AUTHOR: TRAVIS W D (Reprint); LINNOILA R I; TSOKOS M G; HITCHCOCK C L; CUTLER G B; NIEMAN L; CHROUSOS G; PASS H; DOPPMAN J
CORPORATE SOURCE: NICHHD, SURG BRANCH, BETHESDA, MD 20892; NICHHD, DEV ENDOCRINOL BRANCH, BETHESDA, MD 20892; NIH, WARREN G MAGNUSON CLIN CTR, DEPT DIAGNOST RADIOL, BETHESDA, MD 20892; ARMED FORCES INST PATHOL, DEPT CELLULAR PATHOL, WASHINGTON, DC 20306; USN HOSP, PATHOL LAB, BETHESDA, MD 20814; USN HOSP, NCI, NAVY MED ONCOL BRANCH, BETHESDA, MD

20814
COUNTRY OF AUTHOR: USA
SOURCE: AMERICAN JOURNAL OF SURGICAL PATHOLOGY, (JUN 1991) Vol. 15, No. 6, pp. 529-553.
ISSN: 0147-5185.
PUBLISHER: LIPPINCOTT-RAVEN PUBL, 227 EAST WASHINGTON SQ, PHILADELPHIA, PA 19106.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: English
REFERENCE COUNT: 91
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Based on our review of 35 cases and the literature, we found the spectrum of pulmonary neuroendocrine (NE) tumors to be too broad to fit into the traditional three-category classification scheme of typical carcinoid (TC), atypical carcinoid (AC), and small-cell lung carcinoma (SCLC). We found that a spectrum of high- and low-grade tumors exist between TC and SCLC and that in the past many of these tumors have been called AC. We chose to adhere to Arrigoni's definition of AC, as his original criteria characterized a low-grade tumor. For the higher grade non-small-cell tumors (NSCLC), we propose a fourth category of large-cell neuroendocrine carcinoma (LCNEC), which is characterized by: (a) light microscopic NE appearance; (b) cells of large size, polygonal shape, low nuclear-cytoplasmic ratio (N:C), coarse nuclear chromatin, and frequent nucleoli; (c) high mitotic rate [> 10/10 high-power fields (HPF)] and frequent necrosis; and (d) NE features by immunohistochemistry (IHC) or electron microscopy (EM). Thus, after deciding that a pulmonary NE tumor is high grade, the major diagnostic issue is separation of LCNEC from SCLC. This distinction is based not only on cell size, but on a variety of morphologic features. We studied 20 TC, six AC, five LCNEC, and four SCLC and characterized the clinical, light microscopic, EM, IHC, and flow cytometric features of each type of tumor. We did not find any advantage to IHC, EM, or flow cytometry over light microscopy in the subclassification or prediction of prognosis; however, these methods were useful in characterizing these four types of pulmonary NE tumors and in demonstrating their NE properties. LCNEC must be distinguished from a fifth category pulmonary NE tumor: NSCLC with NE features in which NE differentiation is not evident by light microscopy and must be demonstrated by EM or IHC. Although the prognosis of LCNEC appears to be intermediate between AC and SCLC, larger numbers of patients will be needed to demonstrate significant differences in survival.

L15 ANSWER 14 OF 14 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 1991:183590 SCISEARCH
THE GENUINE ARTICLE: FD026
TITLE: TUMORLETS OF THE LUNG - AN ULTRASTRUCTURAL-STUDY
AUTHOR: TORIKATA C (Reprint)
CORPORATE SOURCE: KEIO UNIV, SCH MED, DEPT PATHOL, 35 SHINANO MACHI, SHINJUKU KU, TOKYO 160, JAPAN (Reprint)
COUNTRY OF AUTHOR: JAPAN
SOURCE: ULTRASTRUCTURAL PATHOLOGY, (MAR-APR 1991) Vol. 15, No. 2, pp. 189-195.
ISSN: 0191-3123.
PUBLISHER: HEMISPHERE PUBL CORP, 1900 FROST ROAD, SUITE 101, BRISTOL, PA 19007-1598.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 24
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A tumorlet of the lung is a minute tumorlike lesion found in damaged lungs in close association with the bronchioles. Histochemical and ultrastructural studies identify proliferating cells in the tumorlets as Kultschitzky-type cells. However, the pathological significance of the tumorlets, whether they are hyperplastic or neoplastic, is still controversial. Previous ultrastructural studies on the tumorlets have

been carried out on formalin-fixed lung tissues. The case examined in this study was of typical tumorlets found in a so-called middle lobe syndrome of the lung of a 52-year-old woman. Tumorlets were located within the bronchiolar mucosa surrounded directly by a basal lamina and by the bronchiolar nonendocrine epithelial cells. There were no signs of invasion into the surrounding connective tissues or into lymphaticlike spaces. Between the covering bronchiolar epithelial cells and the subjacent proliferating Kultschitzky cells, specific sites of cell-to-cell attachment were noted. This finding, in addition to previously reported clinicopathological characteristics, indicates that the proliferating Kultchitsky-type cells in the tumorlets might be non-neoplastic and that tumorlets are due to hyperplasia of pure Kultschitzky-type cells, thus resembling neuroepithelial bodies of the lung.

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=> sel L15 5 CIT
E4 THROUGH E4 ASSIGNED

=> s E4
L16          12 "IJSSELSTIJN H, 1995, V30, P413,?"/RE
                ("IJSSELSTIJN H, 1995, V30, P413,"?/RE)

=> d his

     (FILE 'HOME' ENTERED AT 20:25:55 ON 12 APR 2007)

     FILE 'SCISEARCH' ENTERED AT 20:26:13 ON 12 APR 2007
L1           198 S STAHLMAN M?/AU
L2          1797 S GRAY M?/AU
L3            49 S L1 AND L2
L4         11201 S JOHNSON M?/AU
L5             5 S L4 AND L3
                 SEL L5 4 CIT
L6            21 S E1

     FILE 'CAPLUS' ENTERED AT 20:29:54 ON 12 APR 2007
L7            11 S E1
L8            11 S L6 OR L7

     FILE 'CAPLUS' ENTERED AT 20:32:20 ON 12 APR 2007

     FILE 'SCISEARCH' ENTERED AT 20:32:42 ON 12 APR 2007

     FILE 'CAPLUS' ENTERED AT 20:32:43 ON 12 APR 2007
L9             0 S L7 NOT L6

     FILE 'SCISEARCH' ENTERED AT 20:50:35 ON 12 APR 2007
                 SEL L6 11 CIT
L10            7 S E2
L11          727 S TSUTSUMI Y?/AU
L12            6 S L11 AND CALCITONIN
                 SEL L12 5 CIT
L13           19 S E3
L14           14 S L13 NOT L6
L15           14 S L14 NOT L10
                 SEL L15 5 CIT
L16           12 S E4

=> s l16 not (l15 or l10 or l6)
L17          11 L16 NOT (L15 OR L10 OR L6)

=> s l17 1-11 ibib abs
MISSING OPERATOR L17 1-11
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> d l17 1-11 ibib abs

L17 ANSWER 1 OF 11 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
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ACCESSION NUMBER:    2007:73970 SCISEARCH
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THE GENUINE ARTICLE: 121KV
TITLE: Pulmonary endocrine cells in hypoplastic lungs due to foetal urinary tract obstruction: A microscopic immunohistochemical study
AUTHOR: Asabe K (Reprint); Jennings R W; Harrison M R
CORPORATE SOURCE: Fukuoka Univ Hosp, Dept Pediat Surg, Div Pediat Surg, Matern & Perinatal Care Ctr, Jonan Ku, 7-45-1 Nankuma, Fukuoka 8140180, Japan (Reprint); Fukuoka Univ Hosp, Dept Pediat Surg, Div Pediat Surg, Matern & Perinatal Care Ctr, Jonan Ku, Fukuoka 8140180, Japan; Univ Calif San Francisco, Fetal Treatment Ctr, San Francisco, CA USA; Univ Calif San Francisco, Dept Surg, San Francisco, CA USA asabe@fukuoka-u.ac.jp
COUNTRY OF AUTHOR: Japan; USA
SOURCE: ASIAN JOURNAL OF SURGERY, (JAN 2006) Vol. 29, No. 1, pp. 31-35.
ISSN: 1015-9584.
PUBLISHER: ELSEVIER SINGAPORE PTE LTD, 1601, 16-F LEIGHTON CENTRE, 77 LEIGHTON RD, CAUSEWAY BAY, HONG KONG, SAR 00000, PEOPLES R CHINA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 29
ENTRY DATE: Entered STN: 25 Jan 2007
Last Updated on STN: 25 Jan 2007
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB METHODS: We performed a urinary tract Obstruction (UTO) surgical procedure at 93-107 days' gestation in lambs to investigate the relationship between pulmonary hypoplasia and the appearance of pulmonary endocrine cells by quantitative analysis of respiratory tract cells using light microscopic immunohistochemistry.

RESULTS: UTO produced a significant reduction in lung weight, lung/body weight ratio, air capacity, air capacity/body weight ratio ($p < 0.01$) and radial alveolar count ($p < 0.05$), which indicated the presence of lung hypoplasia. These foetuses also showed a significant increase in the number of neuron-specific enolase (NSE)positive pulmonary endocrine cells, expressed as the number of NSE-positive cells per bronchus ($p < 0.01$) or bronchiole ($p < 0.05$), the number of NSE-positive cells per unit perimeter of bronchus or bronchiole ($p < 0.01$), and the number of NSE-positive cells per unit bronchial or bronchiolar surface area ($p < 0.01$).

CONCLUSION: These results Suggest that UTO significantly retards and modifies the structural growth and functional development of pulmonary endocrine cells in NSE expression. We speculate that pulmonary endocrine cells and their mediators may play a role in the problems associated with UTO during intrauterine life.

L17 ANSWER 2 OF 11 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 2006:342283 SCISEARCH
THE GENUINE ARTICLE: 026RG
TITLE: Ghrelin expression in human and rat fetal lungs and the effect of ghrelin administration in nitrofen-induced congenital diaphragmatic hernia
AUTHOR: Santos M; Bastos P; Gonzaga S; Roriz J M; Baptista M J; Nogueira-Silva C; Melo-Rocha G; Henriques-Coelho T; Roncon-Albuquerque R; Leite-Moreira A F; De Krijger R R; Tibboel D; Rottier R; Correia-Pinto J (Reprint)
CORPORATE SOURCE: Univ Minho, Escola Ciencias Saude, Life & Hlth Sci Res Inst, ICVS, Campus Gualtar CP11, Piso 3, P-4709057 Braga, Portugal (Reprint); Univ Minho, Escola Ciencias Saude, Life & Hlth Sci Res Inst, ICVS, P-4709057 Braga, Portugal; Univ Porto, Fac Med, Dept Physiol, P-4200319 Oporto, Portugal; Sophia Childrens Univ Hosp, Erasmus Med Ctr, Dept Pediat Surg, NL-3015 GJ Rotterdam, Netherlands; Sophia Childrens Univ Hosp, Erasmus Med Ctr, Dept Pathol, NL-3015 GJ Rotterdam, Netherlands; Hosp Sao Joao, Dept Pediat, Div Pediat Surg, P-4202451 Oporto, Portugal icp@ccsaude.uminho.pt
COUNTRY OF AUTHOR: Portugal; Netherlands
SOURCE: PEDIATRIC RESEARCH, (APR 2006) Vol. 59, No. 4, Part 1, pp. 531-537.
ISSN: 0031-3998.
PUBLISHER: INT PEDIATRIC RESEARCH FOUNDATION, INC, 351 WEST CAMDEN ST, BALTIMORE, MD 21201-2436 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 38
ENTRY DATE: Entered STN: 7 Apr 2006
Last Updated on STN: 7 Apr 2006
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Ghrelin is a strong physiologic growth hormone secretagogue that exhibits endocrine and non-endocrine actions. In this study, ghrelin expression in humans and rats was evaluated throughout development of normal and hypoplastic lungs associated with congenital diaphragmatic hernia (CDH). Additionally, the effect of antenatal treatment with ghrelin in the nitrofen-induced CDH rat model was tested. In normal lungs, ghrelin was expressed in the primitive epithelium at early stages of development and decreased in levels of expression with gestational age. In hypoplastic lungs ghrelin was overexpressed in both human and rat CDH fetuses when compared with controls. Exogenous administration of ghrelin to nitrofentreated darns led to an attenuation of pulmonary hypoplasia of CDH pups. Furthermore, the growth hormone, secretagogue receptor (GHSR1a), could not be amplified from human or rat fetal lungs by RT-PCR. In conclusion, of all the lungs studied so far, the fetal lung is one of the first to express ghrelin during development and might be considered a new source of circulating fetal ghrelin. Overexpression of ghrelin in hypoplastic lungs and the effect of exogenous administration of ghrelin to nitrofen-treated darns strongly suggest a role for ghrelin in mechanisms involved in attenuation of fetal lung hypoplasia, most likely through a GHSR1a-independent pathway.

L17 ANSWER 3 OF 11 SCISEARCH COPYRIGHT (c) 2007 The Thomson Full Text
Corporation on STN
ACCESSION NUMBER: 2004:42937 SCISEARCH
THE GENUINE ARTICLE: 757AK
TITLE: Amniotic sac infection syndrome features fetal lung neuroendocrine cell hyperfunction
AUTHOR: Saad A G; Heffelfinger S; Stanek J (Reprint)
CORPORATE SOURCE: Univ Cincinnati, Coll Med, Dept Pathol & Lab Med, 231 Albert Sabin Way, POB 670529, Cincinnati, OH 45267 USA (Reprint); Univ Cincinnati, Coll Med, Dept Pathol & Lab Med, Cincinnati, OH 45267 USA
COUNTRY OF AUTHOR: USA
SOURCE: PEDIATRIC AND DEVELOPMENTAL PATHOLOGY, (NOV-DEC 2003) Vol. 6, No. 6, pp. 484-494.
ISSN: 1093-5266.
PUBLISHER: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 56
ENTRY DATE: Entered STN: 16 Jan 2004
Last Updated on STN: 16 Jan 2004
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Neuroendocrine cells (NEC) are abundant in fetal and neonatal lungs, but reduced in infants with hyaline membrane disease. Perinatal neuroendocrine cell hyperplasia (NCH) has been reported in the hypoplastic lung in diaphragmatic hernia, bronchopulmonary dysplasia, and Wilson-Mikity syndrome. Since we are unaware of any reports on NCH in fetal inflammatory conditions, this report addresses the NEC in fetuses with congenital pneumonia. Twenty-one fetuses/neonates with congenital pneumonia, autopsied between 1995 and 2001, were compared to 21 fetuses without a congenital infection matched for gestational age. Lung sections were immunostained for chromogranin, bombesin, calcitonin, and synaptophysin. Proportions of immunopositive cells lining 20 consecutive bronchioles calculated from digital images were significantly higher in the study than the control group for chromogranin (1.8 vs. 0.8%, P = 2.4E-06), calcitonin (1.2 vs. 0.7%, P = 0.005), and bombesin (1.1 vs. 0.7%, P = 0.005). There was no difference in synaptophysin (11.7% vs. 12.6%, P = 0.07). The absence of significant differences in the synaptophysin ratio excludes simple NCH in the study group. The synchronous increase in three neurohormones is indicative of NEC

hyperfunction, due to either altered enzymatic inactivation by neutral endopeptidase, known to be reduced in adult lung inflammation, or by an increase in expression of the neurohormone genes. These data indicate that NEC hyperfunction may be responsible for the deranged fetal/neonatal lung function and circulatory adaptation, and contribute to the lethality of the amniotic sac infection syndrome.

L17 ANSWER 4 OF 11 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 2001:122113 SCISEARCH
THE GENUINE ARTICLE: 397LU
TITLE: Lung growth induced by prenatal tracheal occlusion and its modifying factors: A study in the rat model of congenital diaphragmatic hernia
AUTHOR: Kitano Y; Kanai M; Davies P; von Allmen D; Yang E Y; Radu A; Kitano Y; Adzick N S; Flake A W (Reprint)
CORPORATE SOURCE: Childrens Hosp Philadelphia, Childrens Inst Surg Sci, 34th St & Civ Ctr Blvd, Philadelphia, PA 19104 USA (Reprint); Childrens Hosp Philadelphia, Childrens Inst Surg Sci, Philadelphia, PA 19104 USA; Childrens Hosp Philadelphia, Ctr Fetal Diagnosis & Treatment, Philadelphia, PA 19104 USA; Dupont Pharmaceut, Div Inflammatory Dis, Expt Stn, Wilmington, DE USA
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF PEDIATRIC SURGERY, (FEB 2001) Vol. 36, No. 2, pp. 251-259.
ISSN: 0022-3468.
PUBLISHER: W B SAUNDERS CO, INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 44
ENTRY DATE: Entered STN: 18 Feb 2001
Last Updated on STN: 18 Feb 2001
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Background/Purpose: Prenatal tracheal occlusion (TO) has been shown to accelerate lung growth in animal models and models of pulmonary hypoplasia. However, these models may not mimic early events in human congenital diaphragmatic hernia (CDH). The authors previously have developed a model of TO in the rat. The purpose of this study was to apply this technique to characterize TO-induced lung growth in the early onset nitrofen-induced model of CDH, and to address the clinically important questions of the effect of timing of TO and maternal infusion of terbutaline on TO-induced lung growth.

Methods: Left-sided CDH was induced in the fetuses of time-dated pregnant Sprague-Dawley rats by feeding 100 mg of nitrofen on day 9 of gestation. TO was performed via maternal laparotomy and hysterotomy at 19 days' gestation. At harvest (21.5 days' gestation), lungs from nitrofen-exposed fetuses without CDH (non-CDH), with CDH (CDH), and with CDH and TO (CDH-TO) were compared by analysis of wet and dry weight, DNA and protein content, and stereologic morphometry. A second study was performed to assess relative lung growth achieved by equal intervals of TO after "early" (19 days) versus "late" (20 days) gestational TO. Finally, the effect of maternal infusion of terbutaline, a commonly used tocolytic for fetal surgery, on TO-induced lung growth was analyzed.

Results: Analysis of lung growth showed consistent and significant lung growth in CDH-TO lungs. Lung growth after TO was proliferative and characterized by an increase in parenchymal volume as manifest by increased total saccular number and surface area and radial saccular count. Although visceral reduction was partially achieved, herniated liver was reduced incompletely. The majority of lung growth occurred during the latter half of the TO period. Early gestational age at TO and maternal terbutaline administration adversely influenced lung growth in CDH-TO fetuses.

Conclusions: Prenatal TO induces dramatic lung growth in the early onset, nitrofen-induced rat model of CDH. TO is more effective later in gestation presumably because of the advanced stage of lung development and lung fluid production. This effect could be counterbalanced by the use of P-mimetic tocolytic, which inhibits fetal lung fluid production late in gestation. Multiple factors including fetal lung fluid production and absorption, pharmacologic agents, space-occupying herniated viscera; and

timing and duration of TO may be important clinical variables. The development of the rat model should facilitate further studies into the cellular and molecular mechanisms responsible for TO-induced lung growth. Copyright (C) 2001 by W.B. Saunders Company.

L17 ANSWER 5 OF 11 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1999:445940 SCISEARCH
THE GENUINE ARTICLE: 203LE
TITLE: Pulmonary neuroendocrine cells in nitrofen-induced diaphragmatic hernia and the effect of prenatal glucocorticoids
AUTHOR: Gosney J R (Reprint); Okoye B O; Lloyd D A; Losty P D
CORPORATE SOURCE: Univ Liverpool, Dept Pathol, Duncan Bldg, Daulby St, Liverpool L69 3GA, Merseyside, England (Reprint); Univ Liverpool, Dept Pathol, Liverpool L69 3GA, Merseyside, England
COUNTRY OF AUTHOR: England
SOURCE: PEDIATRIC SURGERY INTERNATIONAL, (MAY 1999) Vol. 15, No. 3-4, pp. 180-183.
ISSN: 0179-0358.
PUBLISHER: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 19
ENTRY DATE: Entered STN: 1999
Last Updated on STN: 1999
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The high mortality associated with congenital diaphragmatic hernia (CDH) is due to pulmonary hypoplasia and hypertension, structural and functional abnormalities which can to some extent be ameliorated by prenatal administration of glucocorticoids. Tn the hypoplastic, hypertensive lungs of neonatal rats in which CDH has been induced by nitrofen, those pulmonary neuroendocrine cells (PNCs) containing calcitonin gene-related peptide (CGRP) increase in number, and it has been suggested that this might be due to inhibition of secretion of the peptide, the consequent decrease in its vasodilatory effects contributing to the hypertension. Whether this increase affects the entire population of PNCs, however, and how these cells are affected by administration of prenatal glucocorticoids, is unknown. As revealed by immunolabelling for protein gene product (PCP) 9.5, a general marker of NCs and expressed per cm(2) tissue section, the total PNC population in rats with nitrofen-induced CDH was significantly greater than in controls receiving only olive oil (672 vs 375/cm(2), P = 0.03) and was further increased (824 per cm(2)) in animals treated prenatally with dexamethasone (n = 8 in all groups). The increase in the total PNC population in rats with CDH is similar in magnitude to that described for the CGRP-containing subpopulation. Since the major role of the products of PNCs is now thought to be the regulation of development of pulmonary tissues and their response to injury, it is probable that the expansion of their population in the abnormal lungs associated with CDH is an adaptive response to pulmonary maldevelopment, a response possibly augmented by exogenous corticosteroids.

L17 ANSWER 6 OF 11 SCISEARCH COPYRIGHT (c) 2007 The Thomson
Full Text
Corporation on STN
ACCESSION NUMBER: 1999:358170 SCISEARCH
THE GENUINE ARTICLE: 192MT
TITLE: Immunohistochemical distribution of bombesin-positive pulmonary neuroendocrine cells in a congenital diaphragmatic hernia
AUTHOR: Asabe K (Reprint); Tsuji K; Handa N; Kajiwara M; Suita S
CORPORATE SOURCE: Univ Calif San Francisco, Fetal Treatment Ctr, 513 Parnassus Ave, Room HSW-1601, San Francisco, CA 94143 USA (Reprint); Oita Prefectural Hosp, Dept Pediat Surg, Oita 8708511, Japan
COUNTRY OF AUTHOR: USA; Japan
SOURCE: SURGERY TODAY, (1999) Vol. 29, No. 5, pp. 407-412.
ISSN: 0941-1291.
PUBLISHER: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010 USA.

DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 27
ENTRY DATE: Entered STN: 1999
Last Updated on STN: 1999
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Morphometrical analyses of the immunohistochemical expression of bombesin, which is one of the peptides produced by pulmonary neuroendocrine (PNE) cells, were carried out on the bronchioles of human congenital diaphragmatic hernia (CDH) neonates, and the findings were then compared with those in a gestational and postnatal age-matched control group. As a result, no difference was found in the number of bombesin-positive cells between the lungs of the control group and the unaffected side lungs in the CDH group except for the ratio of the bombesin-positive cells per unit of the bronchiolar surface area ($P < 0.05$). However, compared with the lungs in the control group, the affected side of the lungs in the CDH group showed a significant increase in the expression of bombesin, namely, the ratio of the bombesin-positive cells per bronchiole ($P < 0.05$), the ratio of the bombesin-positive cells per unit perimeter of the bronchioles ($P < 0.05$), and the ratio of the bombesin-positive cells per unit of the bronchiolar surface area ($P < 0.01$). These results thus suggest that hyperplasia of the PNE-cell system in the lungs of the CDH cases, especially on the affected side, exists in human fetuses. We also further speculate that PNE cells mag thus play a role in the problems associated with CDH during intrauterine life in human beings.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1999:169812 SCISEARCH
THE GENUINE ARTICLE: 170GK
TITLE: Maternal and developmental toxicity of halogenated 4 '-nitrodiphenyl ethers in mice
AUTHOR: Francis B M (Reprint); Metcalf R L; Lewis P A; Chernoff N
CORPORATE SOURCE: Univ Illinois, Dept Entomol, 1101 W Peabody Dr, Room 352, Urbana, IL 61801 USA (Reprint); Univ Illinois, Dept Entomol, Urbana, IL 61801 USA; US EPA, Natl Hlth & Environm Effects Res Lab, Div Reprod Toxicol, Res Triangle Pk, NC 27711 USA
COUNTRY OF AUTHOR: USA
SOURCE: TERATOLOGY, (FEB 1999) Vol. 59, No. 2, pp. 69-80.
ISSN: 0040-3709.
PUBLISHER: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 42
ENTRY DATE: Entered STN: 1999
Last Updated on STN: 1999
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB In an ongoing effort to delineate structure-activity relationships in the developmental toxicity of diphenyl ethers, we evaluated the maternal and developmental toxicity of 10 diphenyl ethers related to the herbicide nitrofen. All possible trichlorophenyl 4'-nitrophenyl ethers were evaluated, as were the 2,4-difluorophenyl and 2,4-dibromophenyl 4'-nitrophenyl ethers. We also evaluated bifenox and chlomethoxyfen, which are 2,4-dichlorophenyl congeners with meta-substituents on the 4'-nitrophenyl ring. Nitrofen (2,4-dichlorophenyl 4'-nitrophenyl ether) was included for comparison. Identity of the halogen affected the postnatal (but not prenatal) mortality induced by 2,4-dihalogenated 4'-nitrophenyl ethers. The presence of 3'-substituents on the 4'-nitrophenyl ring reduced both pre- and postnatal toxicity of 2,4-dichlorinated congeners. Among chlorinated 4'-nitrophenyl congeners without meta-substituents on the nitrophenyl ring, the position of chlorine substituents strongly affected the congener's potential for inducing prenatal vs. postnatal syndromes. All congeners increased liver to body weight ratios in unmated females, but such increases were not well-correlated with either prenatal or postnatal embryotoxicity. Teratology 59:69-80, 1999, (C) 1999 Wiley-Liss, Inc.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1998:758559 SCISEARCH
THE GENUINE ARTICLE: 123PK
TITLE: The lungs in congenital diaphragmatic hernia: Do we understand?
AUTHOR: Ijsselstijn H; Tibboel D (Reprint)
CORPORATE SOURCE: Sophia Childrens Hosp, Dept Pediat Surg, Dr Molewaterplein 60, NL-3015 GJ Rotterdam, Netherlands (Reprint); Erasmus Univ, Dept Pediat Surg, NL-3000 DR Rotterdam, Netherlands; Univ Rotterdam Hosp, Sophia Childrens Hosp, Rotterdam, Netherlands; Erasmus Univ, Dept Pediat, Div Resp Med, Rotterdam, Netherlands
COUNTRY OF AUTHOR: Netherlands
SOURCE: PEDIATRIC PULMONOLOGY, (SEP 1998) Vol. 26, No. 3, pp. 204-218.
ISSN: 8755-6863.
PUBLISHER: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012 USA.
DOCUMENT TYPE: General Review; Journal
LANGUAGE: English
REFERENCE COUNT: 187
ENTRY DATE: Entered STN: 1998
Last Updated on STN: 1998

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Full Text
Corporation on STN
ACCESSION NUMBER: 1998:681610 SCISEARCH
THE GENUINE ARTICLE: 116UT
TITLE: Congenital diaphragmatic hernia. I. Simple defect of the diaphragm or anomaly of the pulmonary mesenchyme?
AUTHOR: Thebaud B (Reprint); de Lagausie P; Forgues D; Mercier J C
CORPORATE SOURCE: Hop Antoine Beclere, Serv Reanimat Neonatale, 157 Rue Porte Trivaux, F-92141 Clamart, France (Reprint); Hop Antoine Beclere, Serv Reanimat Neonatale, F-92141 Clamart, France; Hop Antoine Beclere, Serv Chirurg Viscerale Pediat, F-92141 Clamart, France; Fac Cochin Port Royal, Lab Physiol Resp & Biol Cellulaire, F-75679 Paris, France; Ecole Chirurg, F-75005 Paris, France
COUNTRY OF AUTHOR: France
SOURCE: ARCHIVES DE PEDIATRIE, (SEP 1998) Vol. 5, No. 9, pp. 1009-1019.
ISSN: 0929-693X.
PUBLISHER: EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER, 23 RUE LINOIS, 75724 PARIS, FRANCE.
DOCUMENT TYPE: General Review; Journal
LANGUAGE: French
REFERENCE COUNT: 84
ENTRY DATE: Entered STN: 1998
Last Updated on STN: 1998
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Described for the first rime in 1848 by Bochdalek, congenital diaphragmatic hernia is still a hot topic. How can it be that a simple defect of the diaphragm still has a mortality rate reaching 50% in 1997, and this despite continuous progress in neonatal intensive care If some problems remain unsolved experimental studies over the past 30 years have raised some questions concerning the pathogenesis, and have shed some light into the pathophysiology of congenital diaphragmatic hernia This article reviews the recent knowledge about the aetiology, pathogenesis and pathophysiology of this complex malformation. (C) 1998 Elsevier, Paris.

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Full Text
Corporation on STN
ACCESSION NUMBER: 1997:786581 SCISEARCH
THE GENUINE ARTICLE: YC399
TITLE: Abnormal expression of pulmonary bombesin-like peptide immunostaining cells in infants with congenital diaphragmatic hernia
AUTHOR: Ijsselstijn H (Reprint); Gaillard J L J; DeJongste J C; Tibboel D; Cutz E

CORPORATE SOURCE: HOSP SICK CHILDREN, DEPT PATHOL, MRC, GRP LUNG DEV, TORONTO, ON M5G 1X8, CANADA; UNIV TORONTO, TORONTO, ON M5G 1X8, CANADA; ERASMUS UNIV ROTTERDAM, DEPT PEDIAT SURG, NL-3000 DR ROTTERDAM, NETHERLANDS; ERASMUS UNIV ROTTERDAM, DEPT PEDIAT, DIV RESP MED, NL-3000 DR ROTTERDAM, NETHERLANDS; ERASMUS UNIV ROTTERDAM, DEPT PATHOL, NL-3000 DR ROTTERDAM, NETHERLANDS; ERASMUS UNIV ROTTERDAM, RES INST, NL-3000 DR ROTTERDAM, NETHERLANDS; UNIV HOSP SOPHIA CHILDRENS HOSP, ROTTERDAM, NETHERLANDS; ST CLARA HOSP, ROTTERDAM, NETHERLANDS; UNIV TORONTO, TORONTO, ON M5G 1X8, CANADA
COUNTRY OF AUTHOR: CANADA; NETHERLANDS
SOURCE: PEDIATRIC RESEARCH, (NOV 1997) Vol. 42, No. 5, pp. 715-720

ISSN: 0031-3998.
PUBLISHER: WILLIAMS & WILKINS, 351 WEST CAMDEN ST, BALTIMORE, MD 21201-2436.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 33
ENTRY DATE: Entered STN: 1997
Last Updated on STN: 1997
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Infants with congenital diaphragmatic hernia (CDH) have a high neonatal mortality and morbidity owing to lung hypoplasia and persistent pulmonary hypertension. Pulmonary neuroendocrine cells produce bombesin-like peptide (BLP), a peptide with growth factor-like properties involved in lung development. We examined the expression of BLP immunostaining in pulmonary neuroendocrine cells (PNEC), and in clusters of these cells called neuroepithelial bodies (NEB), in the lungs of three groups of infants: patients with CDH, newborns with lung hypoplasia due to other causes, and control subjects without lung abnormalities. Morphometric analysis included: 1) percent immunostained airways; 2) percent immunostained epithelium (i.e. frequency of PNEC and NEB); and 3) NEB size. Controls and infants with lung hypoplasia did not differ with respect to BLP immunostaining. The ipsilateral and the contralateral lungs in CDH had a similar BLP immunostaining pattern of PNEC and NEB. The BLP immunostaining varied between CDH cases, possibly due to the differences in clinical presentation. The mean NEB size was significantly increased in infants with CDH compared with the other two groups ($p = 0.02$). Some CDH cases with large NEBs also showed a high percentage of immunostained epithelium. Lung-body weight ratio correlated positively with percent immunostained airways, and negatively with the NEB size. We conclude that in lungs of CDH patients BLP immunostaining in PNEC and NEB differs from that of infants with lung hypoplasia due to other causes and controls. The increased BLP immunostaining observed in some cases of CDH might reflect a compensatory mechanism related to impaired lung development and/or failure of neuropeptide secretion during neonatal adaptation.

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ACCESSION NUMBER: 1997:589403 SCISEARCH
THE GENUINE ARTICLE: XP599
TITLE: Prostanoids in bronchoalveolar lavage fluid do not predict outcome in congenital diaphragmatic hernia patients
AUTHOR: Ijsselstijn H (Reprint); Zijlstra F J; deJongste J C; Tibboel D
CORPORATE SOURCE: ERASMUS UNIV ROTTERDAM, DEPT PAEDIAT SURG, DIV RESP MED, ROTTERDAM, NETHERLANDS; ERASMUS UNIV ROTTERDAM, DEPT PAEDIAT, DIV RESP MED, ROTTERDAM, NETHERLANDS; ERASMUS UNIV ROTTERDAM, DEPT PHARMACOL, ROTTERDAM, NETHERLANDS; UNIV ROTTERDAM HOSP, SOPHIA CHILDRENS HOSP, ROTTERDAM, NETHERLANDS
COUNTRY OF AUTHOR: NETHERLANDS
SOURCE: MEDIATORS OF INFLAMMATION, (JUN 1997) Vol. 6, No. 3, pp. 217-224.
ISSN: 0962-9351.
PUBLISHER: HINDAWI PUBLISHING CORPORATION, PO BOX 1210, SYLVANIA, OH 43560 USA.

DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 30
ENTRY DATE: Entered STN: 1997
Last Updated on STN: 15 Sep 2005
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Vasoactive prostanoids may be involved in persistent pulmonary hypertension (PPH) in infants with a congenital diaphragmatic hernia (CDH). we hypothesized that increased levels of prostanoids in bronchoalveolar lavage (BAL) fluid would predict clinical outcome. We measured the concentrations of 6-keto-prostaglandin F-1 alpha (6-keto-PGF(1 alpha)), thromboxane B-2 (TxB(2)), protein, albumin, total cell count, and elastase-alpha(1)-proteinase-inhibitor complex in BAL fluid of 18 CDH patients and of 13 control subjects without PPH. Wie found different concentrations of prostanoids in BAL fluid of CDH patients with PPH: infants with a poor prognosis had either high levels of both 6-keto-PGF(1 alpha) and TxB(2) compared to controls, or high levels of 6-keto-PGF(1 alpha) only. TxB(2) levels showed a large variability in all CDH patients irrespective of outcome. We conclude that prostanoid levels in BAL fluid do not predict clinical outcome in CDH patients.

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     FILE 'SCISEARCH' ENTERED AT 20:26:13 ON 12 APR 2007
L1          198 S STAHLMAN M?/AU
L2         1797 S GRAY M?/AU
L3           49 S L1 AND L2
L4        11201 S JOHNSON M?/AU
L5            5 S L4 AND L3
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L6           21 S E1

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     FILE 'CAPLUS' ENTERED AT 20:32:43 ON 12 APR 2007
L9            0 S L7 NOT L6

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L13          19 S E3
L14          14 S L13 NOT L6
L15          14 S L14 NOT L10
                SEL L15 5 CIT
L16          12 S E4
L17          11 S L16 NOT (L15 OR L10 OR L6)

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